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A RURAL REALITY:
FARM WOMENS' PERSPECTIVES ON STRESS

by
Cindy Sealy-Duquette

A Thesis
submitted to the
Faculty of Graduate Studies and Research
through the School of Social Work
in Partial Fulfillment of the
requirements for the Degree of
Master of Social Work at
the University of Windsor

Windsor, Ontario, Canada

1990

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Abstract

The concern for the emotional well being of farm women has increased in the past several years as a result of recent adverse economic conditions in the farming industry. Using descriptive survey research, a self-administered, mailed questionnaire was distributed to examine the perception of stress in the lives of Essex County farm women. Their perspectives on events, as they related to the farm operation, the economy of the farm and the farm family itself were investigated for their potential contributions to stress in farm women. The resources available to the farm women, as they functioned to mitigate against stress, were incorporated into this study as well.

Analysis revealed that in relation to the demographic profiles, Essex County farm women compared similarly to national and regional study samples. In addition, this study supported the assertion in the literature that farm women engage in a multitude of roles that are consistent with a patriarchal model of family structure. Further, the experience of stress was statistically related to the farm operation's inability to financially provide an adequate lifestyle for themselves and their families.

Overall, farm women in Essex County reported being able to cope with their experiences of stress. However, 60 percent of the respondents reported enduring increased levels of stress, also increases in levels of irritability and anger were equally reported by 39 percent of the respondents. Further, farm women in Essex County reported to have available to them, internal and external resources to help them mitigate against the adverse effects of stress. Of statistical significance was the high incidence of church involvement and the effect this involvement had on the experiences and perceptions of the farm women.

This research is significant because it is beginning to quantify the qualitative research on the impact of structural and economic change on the farm women and her family. This data can serve as a source for social workers who are attempting to develop relationships in the farming community. It can also serve as a reference for political and economic analysts, as well as rural organization specialists as they continue to contend with the issues that remain prevalent to farm women and their families.

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INTRODUCTION

Stress in farm women, as well as the salient factors associated with stress in farm women, were investigated in this study. A local survey of Essex County farm women was conducted for the purpose of quantitatively describing the incidence of stress in their lives. Farm women's perspectives on events, as they related to the farm operation, the economy of the farm and the farm family itself, were examined for their potential contributions to stress in farm women. The resources available to the farm women, as they functioned to mitigate stress, were incorporated into the study as well.

The concern for the emotional well-being of the farm family has increased in the past several years as a result of recent adverse economic conditions in the farming industry. The need for the farm family to make many personal adjustments to adapt to these new and often unwelcomed circumstances has promoted a renewed response by researchers to investigate this phenomenon. Suspensions are emerging to suggest that farm families are responding to these changes in ways that may be detrimental to themselves and others (Hefferan & Hefferan, 1986; Walker & Walker, 1987). It is hoped that additional research into this area will alert family counsellors and policymakers

to the needs of farm women and their families.

Problem Statement

The agricultural industry in this country has entered a period of transition (Forbes & Hughes, 1982; Herrick, 1986; Koski, 1982). Rural North America has sustained permanent and extensive change as a result of evolving economic, political and technological considerations (Wolfe, Masrour, Coursey & Kempster, 1986; Brooks, Stucker & Bailey, 1986; Clarke & Sarpong, 1985; Forbes & Hughes, 1982). The above events have been amply documented by economists and political analysts alike. However, research into the areas of the social impact of such structural changes on the farm family unit is, only now, beginning to emerge. Researchers such as Boss (1985), Craig (1984), Hefferan & Hefferan (1986) and Walker & Walker (1987) have recently completed studies that have documented maladaptive responses of farm families and their individual members to the structural changes in the industry. The nature and the severity of these responses necessitate further investigation into the human dimensions and costs of such changes. More importantly, the impact of change from the farm woman's perspective remains noticeably absent in the literature and thereby must be addressed. In addition to the traditional

responsibilities of home and family, farm women are required in varying capacities, to assist with the operation of the farm. Many also hold employment separate from the farm. Therefore, the effect of the multiple concurrent roles on the well being of farm women justifies the need for further research.

Significance of the Study

The need to continue research into the human dynamics of structural and economic change in the farming community remains vital and significant for several reasons. Primarily, it will endeavor to identify the emotional impact of the economic decline of the farm, on farm women and their families, as well as to identify some of the factors that may have contributed to such development. This information will be of clinical interest to social workers, with a rural clientele, as they begin to plan measures to minimize the impact of change on the farm family unit and its individual members. Interventions that will assist in the reduction of the financial and emotional distress are necessary because the factors that precipitated the downturn in the economy show no immediate signs of recovery (Van De Berg (1989). An awareness of and a sensitivity to the rural contextual issues will determine the degree of success or failure of the

intervention. It is imperative therefore that social workers be as informed as possible of the changing issues that affect rural Canada.

Additionally, it is important to recognize and research the invaluable contributions and sacrifices farm women and their families have made toward agriculture in this country. Using both historical and contemporary contexts, farming was and remains today primarily the claim of the farm family unit. Subsequently, the willingness to invest long hours into the family operation, to subsidize financial losses with off-farm activities and to accept lower returns for labour, represent significant unrecognized hidden costs of food production in Canada. The contributions of woman in these areas has been grossly ignored by business, government and the public (Koski, 1982; Smith, 1987). Women and their families are very much considered an integral part of the agricultural system and it is precisely these contributions by women that serve to defray the true costs of food production. Therefore, there is a need to document the importance of the farm woman's contribution, from an economic and political perspective.

There is also a need to research the farm woman's contribution from a social perspective. In addition to arduous work schedules and

demands, traditional values also suggest that the responsibility for the farm family stability remains that of the woman. Consequently, traditional role demands and expectations, as well as the impact of recent economic uncertainties in the industry, appear to be exceeding the ability of many farm women to cope with these events. Evidence suggests that imbalances are beginning to occur in the farm family unit as a result of the economic instability in the farming industry.

Therefore, research to identify and analyze the causes of the increased stress will help assist social work practitioners in their efforts to plan effective treatment interventions for the farm family unit, as well as to reduce the rising social and health costs related to the occurrence of stress in their lives. A clearer identification of the demands and needs of farm women might result in more effective interventions and services designed to alleviate the stressful events in their lives. For example, family counselling could result in a more equitable distribution of the workload responsibilities by enlightening farm families of the additional burdens that gender-biased expectations have on the farm woman. Other possible outcomes could occur in the provision of better day care arrangements, health and safety services or changes in government fiscal policy as a result of a more informed

farming community.

In conclusion, research into the affects of stress on the farm woman and her family seems imperative. Social workers and health care professionals with rural caseloads, as well as legislators, need to acquire a more accurate sense of the impact of current social and economic change in the farming community, if policy changes and intervention strategies are to be effected.

REVIEW OF THE LITERATURE

The literature and research relevant to stress on the farm, is divided into the following sections: a profile of the farm woman; an overview of the agricultural industry from a structural and an economic context; an examination of the family structure and its agrarian philosophies; an exploration of the stressful impact that change in the industry has had on the farm woman and her family. Historic and social factors which have influenced stress, in farming, are integrated into this analysis.

Profile of the Farm Woman

Although all individuals, who are directly involved in the primary levels of food production, remain vulnerable to the economic instability in the industry, farm women appear to be particularly susceptible. Patriarchal dominance, in conjunction with an increase in participation of women in agriculture, despite the effects of mechanization on the industry, has had predictable consequences on the workload expectations of farm women. For example, the integration of home and farm exacts additional demands of farm women. In addition to their domestic obligations (care of the children and the home), farm women work, in varying capacities, in the farm

operation. As well, the option of off-farm employment is being exercised by more farm women in recent years (Molnar, 1985; Pugh, 1987). For these reasons, then, farm women continue to assume a disproportionate amount of responsibility for the family farm operation (Berkowitz & Perkins, 1987; Craig, 1984, Koski, 1982; Smith, 1987).

The results of a recent study conducted by the Canadian Advisory Council for the Status of Women reinforce the premise of the rigid nature of the division of labor on the family farm (Smith, 1987). This report discusses women's contributions to the farm in three categories: 1) Direct Involvement: which includes labour that is directly involved with the maintenance of the farm operation (driving tractor, chores etc.) as well the completion of farm administrative tasks (accounts, bills, marketing etc.) 2) Indirect Support: which considers activities that pertain to the maintenance of the household and 3) Direct Assistance: which includes off-farm employment pursuits (p. 156-158). This study confirmed that domestic responsibilities remain primarily the domain of the farm woman. It also documents that, in addition to household activities, farm women contribute, on the average, 18 hours a week toward the direct maintenance of the farm

operation (p. 160). The farm woman's workload schedule is even further taxed when they are involved in off-farm employment. Almost 40 percent of farm women are reporting off-farm income, of varying degrees. Employment in "the pink ghetto" sectors of the economy where wage scales remain marginal was reported by 54 percent of the women. A bitter irony exists however, in that farm women report economic necessity as their primary reason for securing off-farm income (Smith, 1987, p. 162).

A similar study conducted by Koski (1982) also attempted to document the employment practices of farm women. Her analysis of the farm woman's contributions also endorsed the experience of multiple concurrent roles. Work demands of a traditional nature, as well as expectations to assist on the farm operation, were supported in her research. Additionally, 30% of her respondents reported off-farm endeavours of one nature or another.

Predictably, these heavy workloads, of which have appeared to surpass reasonable expectations, have created stress in the lives of farm women. Researcher, Linda Craig (1984), explored the incidence of stress of farm woman in the counties of Grey-Bruce, in Southwestern Ontario and concluded that an increase in the levels of stress had

occurred in the lives of the farm women surveyed. Economic factors, followed by social demographic factors, were found to be strongly associated with the intensification in stress levels. Increases in depression, anger, mental fatigue and irritability were reported. These results concur with the outcomes of following research studies.

Berkowitz and Perkins (1987) also suspected a high incidence of stress in the lives of farm women and attributed the stress to multiple concurrent roles that result from the integration of home and work. They examined stress, husband support, farm and home tasks and role conflicts that result from these demanding schedules in a sample of 126 dairy farm wives. They concluded that husband support played a crucial part in mitigating the effects of stress in farm women. Husband support was defined as the frequency and type of informal help provided by the spouse that related to responsibilities in the home and farm (p. 163).

A similar study (Hedlund & Berkowitz, 1979) examined, longitudinally, familial and marital stress in a group of farm families. Biennial interviews were conducted with each family member over a 10 year period. They reported that marital stress, inter-generational and sibling rivalry and role incongruency, as disclosed by the farm

wives, contributed to increases in stress levels. Family characteristics, such as communication and decision-making patterns and the developmental stages of its members, were believed to either contribute to or mitigate against stress.

The experience of stress in the lives of farm family members has been supported by other researchers. Walker and Walker (1986), in addition to documenting the nature of farm stressors among farm women and men, compared responses to stress by observing gender-specific differences. In their survey, women were concerned about the impact economic change was making in their lives but they also reported interpersonal relations, conflict and family concerns as potential areas of stress (sole responsibility for child rearing; home duties in addition to participation on the farm; feeling that their contributions were somewhat devalued; and loneliness). Similarly, Hertsgaard and Light (1984), reported anger, depression and hostility in a group of 760 randomly selected farm women in the mid-United States. The number of children, involvement in decision making responsibilities, contact with friends etc. were also examined for their ability to influence the impact of stress in the lives of farm women.

The lives of farm women are complex and challenging in

nature. The need to understand the quantity and quality of the changes, adjustments and expectations of the farm woman remains, important research. Its importance is of an even greater usefulness when the impact of recent structural and economic influences are taken into consideration.

Structural and Economic Contexts

An historical overview suggests that the agricultural industry has endured various economic adjustments. Recessionary conditions have been cited in almost every decade, since the turn of the century (Herrick, 1987; Little, Proulx, Marlowe & Knaub; 1987). The economic variables that characterize these periods of adjustment and instability are complex and multi-dimensional. Structural change and market uncertainty appear though to be the dominant, re-occurring factors. It has been during the last thirty years, however, that the rate of transformation and adaptation has resulted in appreciable changes in the face of rural Canada. A recent study, prepared for the Economic Council of Canada, found that "no other major industry has undergone such a radical and traumatic structural transformation in a single generation" (Forbes, Hughes & Warley, 1982, p. 4). Post war urbanization and recent movements toward expansion, capitalization

and mechanization are cited as contributory factors (Bullock, 1985; Bultena, Lasley & Geller 1986; Pugh 1987).

Post war urbanization witnessed a mass exodus of the people from the farm to the city. Forbes, Hughes & Warley (1982) have stated that the number of farms has fallen by one-half since 1951 and that the farm population has dropped from 21 percent to 4 percent (p. 4). A more updated statistic has suggested that the current farm population has fallen further to two percent (Smith, 1987). This resulting decline, in the supply of labour, forced the farm industry to consider additional structural changes. These changes are analogous to those experienced by the manufacturing sector during its period of industrialization (Koski, 1982; Lyson, 1986). Emphasis on the economies of scale forced the mechanization of these industries. Non-compliance generally resulted in foreclosure. Similarly, in the agricultural industry, reduction in the availability of labour, increases in the supply of land on the real estate market and pressure to improve efficiency in operations, stimulated expansion and mechanization activities. A gradual transition began to occur in the definition of farming as a "resource- based, labour intensive occupation, with a social and cultural distinctiveness of its own" (Wolfe, Masrour, Coursey &

Kempster, 1986, p. 4). What emerged was the adoption of practices more closely identified with contemporary, capitalistic-oriented methods of operation (Forbes, 1982). Labour was substituted for capital investment. A dualistic structure to farming began to develop. Farmers adapted by becoming either larger, more specialized and more commercial, or conversely, by becoming smaller, with a greater emphasis on off-farm income to subsidize their lifestyles (Deseran & Acock, 1986; Brooks, Stucker & Bailey, 1986). Regardless of their orientation, both became more integrated with the larger, more complex system of food production and marketing (Forbes, Hughes & Warley, 1982, p. 8). The inescapable reliance of producers, on marketing boards to negotiate the commodity price, on financial institutions to provide their capital outlays and on corporations to supply their seed and equipment, had become obvious.

An acceleration of this continuing transformation occurred in the mid-seventies (Bullock, 1985; Clarke 1986; Clouthier & MacMillan, 1987; Olsen & Schelenburg, 1986). A growing world population created the expansion of foreign grain markets. Farmers were challenged by government and business to expand land holdings and to adopt new technologies, in order to accommodate the growing market demands.

The economic climate of the seventies was conducive to such expansions. Capital was available for lending; interest rates were low; commodity prices were high; land values were appreciating. The mid-seventies witnessed an unprecedented number of farmers borrowing unprecedented amounts of capital, to finance their expansions (Bultena, Lasley & Geller, 1986; Clouthier & MacMillan, 1987; Macklin, 1987). These expansions were intended to solidify their financial futures, as well as to accommodate the growing world demands. Farmers, lending institutions and government, both domestic and international appeared very satisfied with these arrangements. Unfortunately, these arrangements lacked any real sense of permanency.

Consensus among the experts have suggested that events of this period precipitated the economic downturn of this decade (Clarke, 1986; Clark & Sarpong, 1985; Herrick, 1986; Little, Proulx, Marlowe & Knaub, 1987). No one singular cause can be attributed to this decline, but rather, the downturn has been attributed to a variety of events and variables. The salient economic variables include limited export markets, increasing interest rates, declining commodity prices, rising input costs, depreciating land values, escalating farm debt and lost

equity (Brinkman, cited in Wolfe, Masrour, Coursey & Kempster, 1986 p. 7).

The early 1980's witnessed a decline in foreign and domestic markets. Heavy subsidization of European producers and the entrance of China, as a major competitor on the world market, reduced the demand for grain from Canadian farmers. Farmers, as a result of their modernization efforts, were prepared for and continued to produce grain for export. Regretably however, there were no markets for the surplus grain. A significant decline in the commodity prices occurred while prices for input costs continued to escalate. The subsequent reductions in farm income were acute. Opinions vary as to how far net farm incomes have plummeted. Clouthier and MacMillan (1987) have estimated that net farm income in 1984 was the lowest it had been in 40 years (p. 6); others have gone further to suggest drops in income levels were more indicative of Depression era levels (Atkinson, 1987; Olsen & Schellenberg, 1986; Van Hook, 1987).

The mid-seventies were also considered a period of high inflation. The loans to finance farm expansions were subsequently granted on markets values and not on the repayment capacities of the operations (Bullock, 1985). When the government introduced

measures to curtail inflation in the late 1970's, the repercussions for the agricultural industry were disruptive. Interest rates rose dramatically; in some instances, it rose as high as 25 percent (Clark & Sarpong, 1985; Pugh, 1987). Because of the capital intensive nature of the business, increases in the interest rate contribute adversely to operational costs. For those individuals who borrowed heavily against their assets, the impact was particularly severe. In addition, land prices began to decline, due to the uncertainty in the market activity. Prices began to "plummet", was the way some authors saw it (Brooks, Stucker & Bailey, 1986, Bullock, 1985; Thoradson, 1987). The subsequent devaluation of the land resulted in an erosion of the farm operation's equity. Decline in land values continues to have a significant adverse impact of the operation (Brinkman, 1986). These changes in turn conflicted with the fiscal policies of the lending institutions. The cumulative effects of the above events weakened the farm family's ability to meet its annual debt obligations.

In summary, declining commodity prices, in conjunction with diminishing markets, poor yields, escalating interest rates, rising input costs and plummeting land prices, began to restrict cash flow and reserves and in some cases, created unmanageable debt loads for many

farm operations. The situation became even worse when the major financial institutions introduced immediate measures to restrict lending practices to farmers. Pressure not to default on their current obligations to the bank served to exacerbate tensions for the farm family. Fiscal policy restrictions and strict repayment practices continue even today.

The resulting erosion of farm equity and farm income have left many farm operations in a tenuous position. Regional and productional disparities have helped to diffuse the severity of the problem. For example, poultry or dairy operations in Southwestern Ontario are said to be less affected by the recent economic changes than grain operations in the Western Prairies. It is still estimated, however, that one third of the farming population is experiencing moderate to severe degrees of economic hardship (Clarke, 1986; Clark & Sarpong, 1985; Pugh, 1987; Wolfe, Masrour, Coursey & Kempster, 1986). Nationally, the Farm Credit Corporation, the major public lending institution for agriculture, estimated that approximately 23 percent of their accounts were in delinquent positions as of July 1989. Provincially, estimates approximated the 13 percentage level. Locally, Essex County projected that 19 percent of their accounts were in arrears,

as of July, 1989. Still, others have been forced to alter significantly their spending patterns to adapt to the decrease in farm income (Carter, 1989). Researchers Bultena (1986) and Thoradson (1987) identify the younger, more innovative and more educated segment of the farm population as being in greatest jeopardy. Paradoxically, it appears that the very segment of the population that was destined to launch the industry into the next generation of farming, faces displacement. Similarly, the viability of the remaining farm operations is being threatened, as well by the slow recovery in the industry. Pressures to adjust at all levels of the industry, have been great. Adjustments necessitated at the inter-personal and intra-familial levels provide the focus of this research.

Farm Family Structure and the Agrarian Philosophy

The farm family structure is complex. To understand the full impact of the changing structural and economic climates, on the farm woman and her family, it is necessary to have a clear understanding of the farm family structure and its tendency to adhere to the philosophies espoused by the traditional agrarian community.

The farm family structure is distinct and recognizable in many ways. Structural attributes that relate to the farm management and

economics of farming as well as geographic and family heritage issues contribute to this distinctiveness. Enduring structural characteristics include seasonal and daily variations in work demands, fluctuating incomes, the inseparability of home and work environments and subsequent reliance upon family members' co-operation (Rosenblatt, Nevaldine & Titus, 1978; Walker & Walker, 1987). To illustrate, livestock operations require constant attention and can never be left unattended. Scheduling whole family vacations is virtually an impossibility. Death and illness of the stock represents real financial losses. Similarly, cash grain operators are faced with the formidable task of planting and harvesting crops within stringent time constraints. Inclement weather and machinery breakdowns adversely affect incomes. Yields affect profits. In a like manner, fruit and vegetable producers still require a ready labour supply to complete their harvest. Labour shortages can jeopardize the harvest of their crops. Inability to complete the harvest also translates into lost revenue. Regardless of the area of specialization, all farm operations face financial uncertainties. These uncertainties are a result of price and yield variations. As a result, a farm family's ability to project, with confidence, the family's annual income, becomes impeded. Regardless

of this uncertainty, however, previous financial obligations must be honoured. Stress is understandable when such commitments cannot be met and when alternative re-financing is not readily available, if available at all.

The farm family's ideological stance also contributes to its uniqueness. Basic tenets of the agrarian philosophy include such concepts as lifestyle expectations, land stewardship ethic and operational independence. Understandably, the farm family owns and operates their farm business for monetary reasons but as the literature suggests, the non-economic reasons for farming provide the determination to persevere during times of adversity (Brooks, Stucker & Bailey, 1986; Davis-Brown & Salamon, 1987; Schrieder, Fliegel & van Es, 1985). Farming is considered a preferred lifestyle that permits the integration of rural residency, economic self-determination and family growth and development (Molnar, 1985, p.142). The farm family is characterized as being tenacious, industrious, committed and emotionally driven. Their motivation is directly linked to the inseparability of home and work. The loss, or threat of loss, of the farm operation translates into the loss of home, job income and perhaps for some, the family heritage. In some instances , the family

heritage becomes synonymous with their sense of identification.

Therefore, the struggle to preserve the farm is a compelling one because the risks of failure are so great and so potentially extensive.

The farm family also is said to adhere to a stewardship ethic. Stewardship is defined as a commitment to sound land management, where the land is treated as a renewable resource (Boss, 1985, p. 78; Davis-Brown & Salamon, 1987, p. 369). There is a commitment to preserve and protect the land for future generations. This sense of obligation cultivates a bonding between the members of the farm family and between the family and the land. When land is generationally transferred, this heritage or legacy becomes firmly established. Similarly, it is also a source of community recognition for the farm family. Structural characteristics of the farm operation, such as its size and kind, as well as the family heritage, are perceived as status symbols in the farming community.

Finally, culturally induced rural values further characterize the nature of the farm family. Its strong, stoic, silent nature reflects a stance of independence and self-reliance. Self-sufficiency suggests a mark of success (Boss, 1985; Clarke, 1986; Mermelstein & Sudet, 1986). The farm family's concept of its self-worth is derived from this

perception of autonomy and entrepreneurship.

To conclude, there are obvious benefits for farm families to maintain their current lifestyles. Predictably, therefore, there are distinct disadvantages associated with a traditional farm lifestyle. A survey conducted by the National Institute of Health and Safety Commission assessed stress indicators in 130 occupations and concluded that farming fell within the top tenth percentile (Keating, 1986; Olson & Schellenberg, 1986; Walker & Walker, 1988). Farm family structure, in addition to recent economic circumstances, are considered factors that contribute to the high incidence of stress in farming. A brief delineation, then, of the impact of these factors, as they relate to stress, experienced within the farm family unit, is fundamental.

The complex nature of the farm family unit often leads to stress. To illustrate, the farm family's ability to maintain the economic viability of the farm operation and the ability to satisfy the expectations of the family and its individual members, requires skillful maneuvering. Imbalances with respect to family expectations and business demands, often occur. Furthermore, heavy commitments of time, to the farm operation, loyalty to the farm heritage, unpredictable

annual incomes and subsequent differing opinions on investment priorities and strategies (i.e. family verses farm operation), heighten tensions. As well, supervisory conflicts, involving the mixing of parental and spousal roles, inability to separate home and work environments and limited opportunities to pursue individual interests, add new perspectives to the stress in the farm family unit (Rosenblatt, Nevaldine & Titus, 1978). Moreover, the inability to control weather, mechanical and crop failures, high operating costs and more importantly, the recent economic instability in the industry, give credence to the assertions of stress in farming and hence in the farm woman and her family.

Stress and its Impact

The physical and behavioural effects of emotional stress on people are complex and dynamic. The severity of the impact of stress on an individual is influenced by many conditions. A partial list of these conditions include: origin, duration, intensity, quality, disposition, predictability and perception (McCubbin & Patterson, 1983; Olson & Schellenberg, 1986, Walker & Walker, 1987). Gender is also a factor that influences stress (Witkin-Lanoil, 1984). Of particular interest to this study are the effects of prolonged stress on the physical

and emotional well-being of the individual. Theoretical concepts that relate to the physiological and psychological responses of individuals to stress, require some consideration.

According to Witkin-Lanoil (1984) stress induces chemical, physical and psychological changes that equip individuals to defend themselves against perceived sources of danger. She refers to the work of Hans Selye and the General Adaptation Syndrome, to support her arguments. Defense responses, as reported by these researchers, are incapable of discriminating against the nature of the stress and thereby stimulates both the nervous system and the endocrine (hormonal) system. She describes the process in this way:

" Within the nervous system, stress messages travel along three pathways. They travel from the brain through motor nerves to arm, leg, and other skeletal muscles, preparing them for motion. They travel from the brain to the autonomic nervous system, which raises blood pressure, heart rate, and blood sugar. . . . And finally, they travel from the brain to the interior of the adrenal gland, which releases adrenaline into the bloodstream as a general stimulant. . . . The

hypothalamus, which also receives stress signals, activates a second system, the hormonal or endocrine. Disruption in hormonal levels can affect the immune system, excretion patterns and metabolism" (p.15).

It is also believed that the biological functions, associated with the reproductive capacity, i.e. breast development, menstruation, pregnancy and menopause, further increase the vulnerability of woman to stress. Consequently, serious health repercussions can and often develop from the cumulative affects of stress.

Evidence to suggest a relationship between prolonged stress and human disease and dysfunction abounds (Haverstock 1987; Hefferan & Hefferan, 1986; Van Hook, 1986). Illnesses which medically characterize stress as the dominant cause are called stress disorders. These include cardiovascular diseases, rheumatoid arthritis, peptic ulcers, bronchial asthma, migraine headaches and anorexia nervosa. Similarly, gastro-intestinal complaints, hypo-glycemia and chronic backache appear as well to be associated with the high incidence of stress. Sleep deprivation is also identified with high levels of stress and is said to affect judgement, concentration and emotions (Dobson, 1983; Walker & Walker, 1986; Witkin-Lanoil, 1984).

In addition to physiological disorders, prolonged and unmanaged stress can cause behavioural disruptions in the lives of stress sufferers. Responses vary. When the source of stress is unknown or inaccessible, displaced aggression against innocent people or objects may occur. Denial, withdrawal, repression and depression represent additional, ineffectual coping mechanisms that are designed to reduce discomfort of stress. Evidence is also beginning to emerge which relate the incidence of suicide and depression to substantial economic loss. Downward mobility and declining income reflect a loss of self-esteem (Brenner, 1985). Other reactions include over-consumption of alcohol or drugs and possible criminal activity. Lack of awareness of more adaptive coping mechanisms as well as resistance to change habitual patterns of behaviour, can perpetuate the problem of stress mismanagement. Psychological interpretation of the stressor event determines, however, the type and severity of the response. For example, on one occasion, a situation may generate a pattern of physiological and psychological responses but responses could vary on the next occasion, regardless of the identical nature of the circumstances. Perception, consequently, plays a crucial role in stress management (Dodson, 1983, McCubbin & Patterson, 1983).

In summary, stress remains a very complex, multi-dimensional phenomenon that takes into consideration physiological, social and psychological factors. Individual perception is an essential determinant in the variation of response. Duration is another important factor. Short-term pressures allow the individual time to recover and restore stability; conversely, long-term stress challenges the endurance level of the individual (McCubbin & Patterson, 1983; Witkin-Lanoil, 1984). An erosion of the physical, emotional and social well-being of the individual often results. To eliminate the discomfort associated with stress, individuals respond in ways that are familiar to them.

Reactions by farm women, to the various conditions imposed on them, are emerging. These reactions vary in their severity. Often, farm families adopt a fatalistic orientation toward the innate uncertainties and ambiguities associated with farming (Boss, 1985). The farm family learns to accept the normal stressors (machinery failures, inclement weather etc.) as being inevitable and inherent to the industry. This fatalistic attitude is considered a sensible and an adaptive response when it is impossible to predict all circumstances and results. However, evidence is beginning to surface which suggests

that an over-reliance on this coping mechanism is beginning to take place. Denial of the situation and a passive approach to the management of the affairs of the operation are considered manifestations of this fatalistic-orientation coping strategy (Boss, 1985; Clarke, 1986; Zeller, 1986).

The farm family is also beginning to react to the perceived loss of control over its ability to function as an autonomous, self-supporting entity. Changes in the economic and political policies have necessitated a greater dependency of the farm family upon government and financial institutions. Yet, as Wolfe (1986) and her colleagues advocate, farm families, according to the agrarian philosophy, perceive themselves as being independent. Ambiguity results when the dependence upon the larger world conflicts with the independence they believe themselves to have. Often, the farm family is dealing with issues over which they have little or no control. A sense of resentment results when the farm family realizes the extent and the impact the various political and economic factors have on their lives. For example, poor commodity prices, rising input costs and vague government policies generate tension and apprehension as a result of these factors.

The option of off-farm employment, to alleviate financial distress, is being relied upon with greater frequency. Although off-farm endeavours have always been considered a viable option for those families who wanted to achieve the social objectives of farming without increasing their capital outlays, the frequency with which farm families are utilizing this alternative has increased disproportionately in the 1980's (Acock & Deseran, 1986; Coward & Jackson, 1983; Molnar, 1985; Pugh, 1987; Walker & Walker, 1988). Incorporating increased work loads that occur as a result of the off-farm activities requires adjustment. This adjustment is further exacerbated if the off-farm decision conflicts with the family's value system. Although changes in traditional family structure have been gradual, an adherence to a more patriarchal, multi-generational family system, however modified, still exists. If the off-farm employment is secured by the farm woman, a threat to the existing family structure may be perceived. The resulting frustration can create additional stresses which the family must endure, to survive.

Resentment, denial and apprehension are understandable responses to the farm family's disappointment with the perceived erosion of their lifestyle. The austere and prolonged nature of the

decline is challenging the resiliency of the farm family unit.

Maladaptive responses have emerged, as a result of the mismanaged tension. Manifestations of symptomatic behaviours include increased marital discord, chemical and alcohol dependencies, emotional outbursts, depression-anxiety, eating and sleeping disruptions, excessive fatigue and migraine headaches (Bultena, Lasley & Geller, 1986; Davis-Brown & Salamon, 1987; Hefferan & Hefferan, 1986; Walker & Walker, 1988; Wiegand, cited in Olsen & Schellenberg, 1987; Zeller, 1986).

Researchers Walker and Walker (1986) recently conducted a study to document and assess the stress levels of 817 farm men and women in Western Canada. An adapted version of the Hopkins Symptom Checklist was used to measure the stress responses. The results obtained were compared to a non-farming sample of business and professional women and men. The comparisons reflected higher levels of stress in the farming population. The results indicated that almost 50 percent of the respondents reported symptoms of chronic fatigue, loss of temper and trouble sleeping, in addition to other related symptoms (p. 14). Women, younger farmers and farmers managing mixed grain operations with off-farm activity appeared more

susceptible to the affects of stress.

These results were supported by researchers Hefferan and Hefferan (1986). They also completed a study that assessed the incidence of stress of 42 farm families who had been displaced from their farms as a result of the economic downturn. Depression, withdrawal, physical aggression, confusion, excessive smoking and drinking were reported by the families interviewed (p. 6). However, the generalizability of this particular study was limited since the sample was biased in that it was not characteristic of the general farm population. This particular sample included only families who had lost their operations and as such is not considered representative of the general population.

A subsequent study, on stress in the farming industry, completed by Bultena, Lasley & Geller (1986) also concurred with the results of the Walkers' and Hefferan studies. They hypothesized that financial stress would be positively associated with: 1) perceived deterioration of life situation; 2) personal and familial stress; and 3) adverse change in family life patterns (p. 438). The results of the study substantiated the above hypothesis. Unfortunately, the stress impact scales were not devised to assess the quality and the intensity of the

stress, only to establish whether stress had or had not occurred.

Although the above research endeavours are limited in their scope and generalizability, a flavour for the menacing effects that stress is causing in the lives of farm families is put forward.

In summary, the agricultural industry in Canada is in a period of transition. Structural changes, in addition to recent economic demands have compelled the industry, at all levels of production, to re-evaluate traditional practices and policies and to make the necessary adaptations. Of particular interest is the impact these changes have had on the farm woman and her family. An analysis of the nature and extent of these reactions, according to the farm woman's perceptions, remains the focus of this study.

Conceptual Framework

The conceptual framework for this study is derived from Gail Melson's Eco-system Model of Environmental Stress and The Family (Melson, 1983). Initially, Melson draws heavily from the theories of Urie Bronfenbrenner's, ecology of human development, to formulate her thesis. Bronfenbrenner's (1979) theory is defined as

"The study of the progressive, mutual accommodation
between an active, growing human being and the

changing properties of the immediate settings in which the developing person lives, as this process is affected by relations between these settings, and by the larger contexts in which the settings are embedded" (p. 21).

This definition emphasizes three important aspects. Firstly, it stresses the dynamic character of the human being and its deliberateness to move through the system, to re-shape it to make it more compatible with their drives and ambitions. Secondly, it recognizes the ability of the environment to exercise an influence of its own, thus suggesting that a process of mutual negotiation must occur in order to maintain stability in the system. Finally, it stresses the importance of recognizing that an individual's environment extends beyond its immediate setting to include the "interconnections between the settings, as well as the forces from the larger, more global features of the environment" (p. 22). Environment is further classified into four categories: micro-systems, meso-systems, exo-systems and macro-systems.

A micro-system is defined as the immediate physical context in which an individual carries out functions and activities that are related

to their roles in life. Emphasis is placed on the interpersonal relations that develop as a result of these experiences. The meso-system refers to the system of micro-systems that an individual actively participates in and is extended each time a person moves into a new setting.

Examples of meso-systems are the home, school, office, hospital etc.

Exo-systems refer to the major institutions that operate and influence at a local level. The individual in these instances, does not actively participate in the systems but is affected by the events that occur in them. These include the neighbourhood, government agencies and the media. Finally, the macro-system refers to the larger, powerful institutions of the economy, culture, political systems and religious organizations and includes the ideologies of the system (p. 22-26).

Each of these environments is mutually dependent on the others. Movement in any dimension creates movement correspondently throughout the system. For example, a decision of the Bank of Canada (the macro-system) to increase interest rates, affects the local bank's lending rates (the exo-system) which subsequently affect the farm family debt obligations (the micro-system). Movements are described as ecological transitions. These occur throughout the life span of the individual, at all systems levels and are influenced by

biological change and environmental circumstance (Bronfenbrenner, 1979). Ecological transitions are important because they involve change in role expectations and behaviour. The ability to function effectively in one's roles is determined by the quality of the linkages between the systems. Quality of the linkages is subsequently influenced by the number of systems, and the degree of compatibility, coherency and complexity of the systems. These become important environmental characteristics in assessing stress (Bronfenbrenner, 1979; Melson, 1983).

Melson's thesis, however, goes considerably further. She discusses the concepts of demand and fit as a subsequent feature of this particular model. Demands are defined as the expectations both the environment and the family or individual have of each other. The amount of stimulation within the system and the ability of the individual to move within the system as well as the complexity, coherency and compatibility of the system determine the level and nature of the demands. Examples of environmental demands include competing meso-systems, incoherent micro-systems and rapidly changing macro-systems. An example of a family demand would be the expectation that the environment provide them with some sense

of identification, as a family unit. Emphasis is given to the changing nature of the family and the environment. Stress emerges as a result of a lack of fit between the environmental and individual demands as perceived by the individual; conversely, adaptation is defined as the ability of individual to resolve this discrepancy to satisfy their demands and expectations (Melson, 1983, p. 153-156). Recognition, that normal ways of functioning will not address the imbalance, is essential.

Adaptation, the need to master a better fit between the individual and the environment, depends on the kinds of resources and coping strategies available to the individual. These are further defined as the family members' personal resources (finances, education, health, self-esteem etc.); the family resources (family's cohesion and adaptability) and the social support resources (both of an interpersonal nature and external resources) (McCubbin & Patterson, 1983, p. 16-17).

In summary, stress is defined as the lack of fit between individuals and their environment. Individual perception, understanding and need, as they relate to the various dimensions of the eco-system, are crucial elements of the definitions. These systems are considered dynamic and driven by change. It is the process of continual accommodation between individuals and their needs and

their changing environments that determines individual growth and satisfaction. Indeed, the networks that engage the farm woman and her family are numerous, complex and challenging. As demonstrated earlier, the constraints placed on the farm woman and her family by its structural demands, for example, invariant and seasonal work schedules, in addition to the macro influences of the larger, more pervasive economic and political spheres, for example, the Bank of Canada interest rates, are vital forces which individuals, within these networks, must contend. To illustrate, the farm woman, while trying to balance the demands of home and family, must also comply with bank and government expectations that can, and often do, conflict with the farm woman's needs and the needs of her family. Additionally, employers, schools and extended family and friends also compete for the farm woman's time and her family's time and resources. The ability, then, to adjust and adapt to the continuous and complex demands of the environment remains a formidable task for the farm woman and the farm family unit. The experience of stress in farm women and their families becomes virtually inescapable.

METHODOLOGY

Purpose of this Study

The purpose of this study is to explore and describe the incidence of stress and the salient factors related to stress in farm women. The study limits its examination of stress to the following three areas: farm related events, economic events and family relations. Therefore, this study will use a descriptive survey to investigate the following research questions:

- 1) What are the environmental demands occurring in the lives of the farm woman?
- 2) What are the farm woman's demands?
- 3) What are the farm woman's resources?
- 4) What is the demographic profile of the farm woman?
- 5) What is the stress (lack of fit) between the demands of the environment and the demands of the farm woman, as perceived by the farm woman?
- 6) What is the relationship between stress (lack of fit) and the environmental demands?
- 7) What is the relationship between stress (lack of fit) and the farm woman's demands?

- 8) What is the relationship between stress (lack of fit) and the farm woman's resources?
- 9) What is the relationship between stress (lack of fit) and the farm woman's demographic profile?

Definition of Concepts

The key concepts to be used in this research are defined in the following manner:

Farm Women: women who participate on an active farm operation. Participation includes both direct contributions (field work, chores) and indirect contributions (off-farm, administrative, household, child-rearing).

Environment: continuum ranging from the immediate physical contexts of home and farm (meo-system) to the more global structures of government and the economy (macro-systems). The settings for the purposes of this study encompassed:

Farm Economy: aspects that are directly related to the financial administration of the farm, for example, the solvency of the operation, spending practices and obligations.

Farm Operation: aspects that are directly related to the maintenance of the farm operation, for example, harvesting and planting activities.

Family: aspects that directly relate to the roles of the farm woman within the context of the farm and her family, for example, parenting and household activities.

Environmental Demands: demands the environment has of the individual or family, for example, current financial constraints.

Farm Woman's Demands: demands the farm woman has of her environment, for example, lifestyle gratification, financial compensation.

Resources: are associated with coping and adaptation and include family characteristics and family functioning. They are further defined by McCubbin & Patterson (1983, p. 16) and are:

Family Member Personal Resources

- i) Financial
- ii) Education
- iii) Health (physical, emotional)
- iv) Psychological (self-esteem, mastery)

Family Member Resources

- i) Family Cohesion (sense of belongingness)
- ii) Family Adaptability (flexibility)

Social Support

1) Interpersonal

- i) emotional support (cared for and loved)
- ii) esteem support (valued)
- iii) network support (mutual obligations)

2) Social Networks

- i) neighbours, self-help groups, church groups

Stress: lack of fit or congruence between the environmental demands and the demands of the farm women, for example, the demand for financial restraint verses the demand for financial adequacy.

Demographics: age, education, size and kind of farm operation and the number of children.

Design

This study used a descriptive survey methodology, with a self-administered questionnaire. A quantitative method has been chosen in an endeavour to complement the narrative work that currently exists in the area of the human dynamics of farming. While limited investigations have examined the farm family's response to recent hardships in the industry, few have attempted to research the response from the woman's perspective. Time and cost restrictions prohibited a

large scale investigation, therefore, a local survey was considered the most effective means to obtain the relevant data. This study was influenced by a collaborative research endeavour that occurred in 1984 between the University of Guelph, Master of Arts candidate, Linda Craig and a local organization called "Concerned Farm Women" (Craig, 1984).

A cross-sectional approach was utilized to begin to relate the incidence of stress to salient structural, familial and economic characteristics of the farm. The data collected on the incidence of stress in the lives of the farm woman was described and compared for possible relationships of significance.

The Setting

The setting for this study encompassed the geographic boundaries of Essex County, in Southwestern Ontario. All 21 townships were included in the sample. The farming population of this area approximates 3000 active farm operations with a membership of almost 8000. Farmers in Essex County are involved, in a variety of capacities, in the primary levels of productions. Areas of specialization include: 1) mixed grain (soya beans, corn, wheat); 2) fruit and vegetables; and 3) beef, pork and poultry. Variation in the size of their

operations is also common. For example, farm operations can range in size from as small as 50 acres to as large as 1500 acres.

The Population

The population chosen for this study included all women who resided and participated on farm operations within the County of Essex. Participation was defined to include both activities of a direct nature (harvesting, chores) as well as an indirect nature (household, child care and off-farm employment). An attempt to control for farm size was considered to minimize the influence of those individuals whose livelihood was not directly related to their farm income. However, exceptions were made to include the fruit and vegetable growers. Smaller acreages are the norm for these operations, as they tend to be fairly labour intensive.

Sampling Procedures

It was initially intended that the sample for the study would be derived from a local farm organization (The Ontario Federation of Agriculture). A copy of the data collection instrument was given to the Education Co-ordinator of this organization for her information and review. Discussions with the Co-ordinator led, however, to a re-evaluation of the sampling and distribution procedures. In her

experience, the return rate for self-administered questionnaires to their membership had not been very favourable. To evidence the Federation's endorsement of the research, however, an invitation was received to address their annual meeting.

Contact with leaders in various church and farm organizations in the community was initiated to recruit their support in the distribution of the data collection instrument. Endorsement of the research was evidenced by their invitation to attend their regularly scheduled monthly meetings and other special functions. In addition, the technique of "snowballing" was implemented in an attempt to increase the rate of participation. The technique of snowballing is appropriate when the researcher is "interested in a very special population of a limited size and only knows a handful of appropriate persons from that population" (Grinnel, 1985, p. 145). Circulation lists were obtained from various organizations and their members were requested to identify prospective respondents. These potential respondents were contacted by telephone, to discuss the objectives of the research and to invite their participation. Respondents who were contacted in this way were also asked if they were aware of anyone else, within their social and family networks, who might be interested in

participating in the survey. Personal contact was extended to all individuals referred in this manner.

The majority of respondents were obtained by this approach. An attempt to ensure geographic representativeness was accomplished by contacting associations whose memberships included the entire county such as The Ontario Federation of Agriculture and The Women's Institute of Ontario. This process of non-probability sampling continued until an adequate number of responses was secured. The actual data collection was begun in December, 1989 and was completed in January, 1990.

Administration of the Questionnaire

Questionnaires were group-administered, whenever possible. Many respondents were, however, recruited by telephone contact. Their questionnaires were often hand delivered to their respective mail boxes, as this was a convenient and cost effective method of distribution for the researcher. Each survey package, with the exception of those that were group-administered, included the questionnaire, the cover letter and a self-addressed stamped envelope, to facilitate the return of the questionnaire directly to the researcher. On the occasions when the survey was group administered, an oral

presentation substituted for the cover-letter. Since time constraints, at the group functions, presented an unanticipated barrier, respondents were given the option to complete the survey immediately after the meeting adjourned or alternatively, to forward it to the University within a specified period of time. Self-addressed stamped envelopes were provided in these instances, as well. Without exception, all respondents elected to submit their completed questionnaires by mail. All potential respondents were asked, when feasible, to complete the questionnaire within one week.

Completed questionnaires were addressed to the University and held for the Researcher at the School of Social Work. The questionnaires were subsequently opened and individually given an identification number. Identification numbers were assigned for the sole purpose of facilitating the coding procedures. The envelopes were then discarded, to ensure that the questionnaire could not be identified with specific groups or persons.

Data Collection Instrument

A three part questionnaire, subsequently labelled A, B and C, consisting of 55 questions, was developed for this study. The questionnaire was adapted from the Craig study on the "Perceived

Economic, Social-Demographic and Farm-Related Factors Associated with Stress in the Farm Women of Grey and Bruce Counties" (1984). Craig worked in conjunction with the University of Guelph and a local organization called "Concerned Farm Women", to respond to this group's need to conduct a survey on the impact recent financial changes were having on their respective farming communities. Responsibility for developing the content of the questionnaire was primarily that of the Concerned Farm Women's association, while responsibility for ensuring the validity and reliability of the questionnaire was that of the University's research team. Consultations with faculty, as well as a pre-test of the data collection instrument, were measures taken to establish the validity and reliability of the instrument. This process resulted in major revisions to the original questionnaire. A second pre-test of the data collection instrument was recommended by the research team, however, time constraints did not allow the administration of a subsequent test. Permission to use this data collection instrument was sought and was granted verbally, on the condition that University of Guelph did not object. No objections were received.

Closed, structured questions (checklists, Likert scales, and short-

answer questions) were used, in order to facilitate the data analysis and to reduce the amount of time needed to complete the questionnaire. The directions for completing questions and sections of the questionnaire were incorporated throughout the instrument.

Part A: Environmental/Individual Demands

The intent of Part A of the questionnaire was to determine the kinds and numbers of demands and responsibilities that farm women contend with as they related to the farm, the family and to the financial aspects of the operation. It requested information with respect to the following: 1) the farm operation; 2) the off-farm endeavours of the farm woman and her spouse; 3) the division of labour, as it related to the farm operation, the administrative responsibilities and the household tasks and 4) the financial status of the farm operation and related spending obligations. It also asked the farm woman to describe her expectations of the farm and to rate her level of satisfaction with respect to both her expectations of the farm and the division of tasks and labour which she completed. Finally, it asked the farm woman to assess her levels of stress and to specify plausible causes for the perceived stress. These questions used a Likert scale by which the respondents were asked to record the frequency with which various

demands and responsibilities occurred and to specify their level of satisfaction with these conditions. In addition, a category called "other" was frequently used in an attempt to make the lists potentially exhaustive. Similarly, a Likert scale was used to report the level and causes of stress in their lives. Respondents were asked to indicate the levels of intensity with which they perceived themselves to be experiencing psychological and physiological stress-related symptoms. Examples of symptoms which were included in the questionnaire were headaches, muscle tension, drug involvement and depression. Factors that related to the family, the farm and to their finances were similarly noted for their stress provoking tendencies. Lack of profits, lack of spousal and family support and inclement weather were included as examples of perceived stressors in their lives. Checklist formats and short-answer questions were used to acquire the remaining information in this Part.

Part B: Individual/Family Resources

Part B of the questionnaire was designed to assess the quantity and quality of the resources that the farm woman had available to her and to determine how these resources functioned to mitigate stress. The definitions were derived from the Hill ABCX Model of Stress

Assessment, as adapted by McCubbin and Patterson (p. 16). The questions in this part were again adapted from the Craig study on stress (1984). The salient resources included the individual members' personal resources, such as their psychological characteristics (self-esteem and self-mastery). The family's cohesive nature and their communication patterns, as well as their social networks, were also considered to be resources. Family cohesiveness and communication patterns were also included and operationally defined by the following statements: we feel loved and cared for in this family; our family is open to change and is flexible regarding rules and roles; differing opinions are welcomed and listened to in this family. Again, Likert scales were used to obtain this information. Respondents were asked to describe their families according to such statements. The farm women were also questioned on their patterns of "help seeking", in addition to the types and nature of their social networks. Other factors, such as the farm women's finances, education and related health (physical and emotional), were considered as resources but were structurally included in sections A and C of the survey.

Part C: Demographic Information

Part C of the questionnaire requested information on the five

demographic variables: age, education, farm size, area of specialization and number of dependents in the household. These demographic variables were chosen for their potential ability to contribute to or mitigate against stress. Age and the number of dependents in the household were included to reflect expense and workload responsibilities for the farm woman.

Reliability and Validity

The appropriateness and relevancy of questions from the Craig questionnaire resulted in few actual changes to the content of the questions themselves, however, the length of the original questionnaire was considered rather excessive. Therefore, major deletions were effected in order to reduce the questionnaire to a more manageable length. To ensure that content validity of the questionnaire remained relatively unaffected, experts in the field of agriculture as well as the School of Social Work were consulted for their suggestions.

An additional attempt to establish content validity for the adapted data collection instrument occurred as a result of the researcher's involvement in a community development practicum which investigated the feasibility of self-help groups for farm women

in Essex County. Interviews were conducted, both in and outside the district, with government agencies, farm associations and various farm women, to illicit their perspective on the issues and hardships being confronted by the farm community. Approximately 40 interviews were conducted over a period of three months. The results were analyzed, according to specific themes. These themes were consistent with the issues and questions examined in the Craig survey. General consensus from these interviews concluded that a sense of frustration and pessimism pervaded the farming community, with the source of resentment being attributed to the current adverse economic conditions.

In a like manner, a pre-test of the questionnaire, to ensure its clarity, was administered to a small group of five farm women. As a result of this pre-test and respective consultations, some minor changes were made to the instrument. Directions for completing the questions were made more explicit in some instances, as well as the rearranging of some questions, for a more logical sequence. A final question was inserted, that allowed the respondents the opportunity to express, qualitatively, any other comments or concerns.

Cover Letter

The intent of the covering letter was to introduce the researcher to the potential respondents and to invite them to participate in the study (see appendix A). The purpose of the research was discussed with specific reference being given to its significance. Respondents were advised of the approximate time for completion, in addition to instructions for mailing. Anonymity was assured.

Analysis

The Statistical Package for the Social Sciences (SPSS) was used for the analysis of the data (Nie, Hull, Jenkin, Steinbrenner & Brent, 1975). Descriptive analyses, using modes and means, were obtained in order to discover frequency distributions of responses, where relevant. This analysis was appropriate since the questions supplied either nominal or ordinal data. The Chi Square statistic ($p < .05$) was used to compare the responses of participants who had experienced stress with respect to their: a) environmental conditions; b) individual expectations; and c) resources. The Chi Square statistic was also used to compare the above data with the demographic variables. Chi Square was an appropriate test since it measures the significance of different responses by comparing the observed and expected frequencies, of a

variable. Qualitative analysis occurred on all information supplied in the 'other' items.

Protection of Human Rights

Written or oral explanations, of the purpose of this research, were extended to all respondents in order to facilitate their participation through informed consent. Anonymity and confidentiality were assured for each respondent. Consent was implied by the voluntary and individually mailed return of the questionnaire. On the occasions when the questionnaires were group administered, the opportunity not to participate, was made explicit. It was hoped, however, that the acknowledgement of their contributions to agriculture, as farm women, as well as giving them the opportunity to express their thoughts and feelings towards recent economic and social changes, would re-inforce to them the vital role they play in our society today. Finally, information about how they might obtain results of the survey was explained in each instance.

Methodological Limitations

There are limitations which can occur in all research designs that use mailed surveys. There is the risk that the structured questionnaire may not incorporate the respondents' total perception

since there are no occasions to ask supplementary questions. Mailed questionnaires also do not allow respondents to ask for clarification of questions which they may have perceived as ambiguous, therefore resulting in inaccurate or unanswered data. As well, attitude is an important factor in interpreting test results. Respondents may feel a need to respond in socially acceptable ways. Conversely, unanswered questions could conceivably indicate a passive-aggressive approach to completing the questionnaire. Questionnaires, too, do not allow for the documentation of non-verbal behaviour.

Finally, the lack of comparative studies in this area, necessitated the reliance on a previous instrument, the Craig questionnaire, which was of unknown validity. Nevertheless, the application of an existing data collection instrument remains part of the validation process.

DATA ANALYSIS

This research is a descriptive study, exploring farm women's perceptions of stress within the context of their external environment. Environment, as defined by the terms in this study, is further classified on a continuum that ranges from the immediate physical settings of home, family, work and the farm (meso-systems) to the more global contexts of church, state and the economy (macro-systems). The demographic profile of the farm woman begins this discussion. The demands and responsibilities associated with the roles of the farm woman, as well as the expectations she had of her environment, were examined. Stress and the factors related to stress, as perceived by the farm woman were discussed. Finally, specific analyses were completed on the quantity, quality and accessibility of the farm woman's personal and family resources. Analysis were also conducted through cross sectional techniques among a variety of demographic variables.

The Demographic Profile of the Farm Woman

The demographic profiles of the respondents were defined by the use of the following variables: marital status, age, number of children, education, farm background and structural characteristics of the operation (kind and size). Chi Square statistical tests were

performed on several variables in order to compare the different groups. The variables subjected to the Chi Square were: age, number of children, education of women, structural characteristics, farm background, off-farm income, financial adequacy, church involvement and decision making patterns. Overall, these analyses revealed that the respondents tended to be a relatively homogeneous group. Certain variables were collapsed because of their small distributions. Variables did demonstrate statistical significance, but since there were high percentages of unanswered responses on the question that related to stress symptoms, this information was included, but must be viewed as general observations.

Of the 180 questionnaires distributed, 134 questionnaires were completed and returned. Each questionnaire was reviewed for its usability. As a result of this process, five questionnaires were disqualified. Two of the five questionnaires were omitted because they were returned unanswered; an additional two envelopes were received however, the questionnaires were not enclosed; finally, the fifth questionnaire did not meet the eligibility criteria of this study as the respondent was not an active participant on a farm operation. Therefore, 129 surveys were analyzed for the purposes of this study.

This represents a usable return rate of 72%. The data collection phase occurred between the months of December, 1989 and January, 1990. Respondents were asked to return the questionnaire within one week, when feasible. This appeared to be an effective strategy, as the questionnaires were returned within a six week period. This period, incidentally, included the Christmas holiday season as well as the decision to use a personal approach to market the distribution of the questionnaire appeared to be an equally as effective strategy. Farm women responded favourably to the personal contact.

Farm women appear to have many characteristics in common. The data evidenced that they were predominantly married ($n = 125$: 97%); two respondents reported living singly, while the remaining two chose not to disclose their marital status. The ages of the farm women who participated in the study, ranged from 24 years to 72 years, with 53 (41%) of the group being less than 40 years of age and 76 (59%) of the group being over 40 years of age. Their spouses were reported to be older than the respondents, with 45 (35%) of spouses being below the age of 40 years, while 84 (65%) were over the age of 40 years. The spouses ages ranged from 27 years to 73 years.

The majority of these farm women ($n = 99$: 77%) reported

having children (see Table 1). The ages of the children were categorized into 5 age groups: less than 1 yr; 1-5 yrs; 6-10 yrs; 16-20 yrs; and 20 yrs and older. Few infants (n = 5: 2%) were reported, in contrast

Table One

Age of Farm Children According to Sex

Age in years	Male		Female		Total	
	N	%	N	%	N	%
<1	3	2	2	2	5	2
1-5	25	17	19	21	44	19
6-10	32	22	17	19	49	21
11-15	29	20	15	17	44	19
16-20	18	13	18	20	36	15
20+	37	26	19	21	56	24
Total	144	100	90	100	134	100

to a higher percentage of children over the age of 20 (n = 56: 24%). As well, the number of male children exceeded the number of female children by 54 (23%).

The educational experiences of the farm women, in this study, were somewhat diverse (see Table 2). Many of the respondents (n = 48: 40%) reported having completed grade 11-13, while an additional (n = 61: 50%) reported involvement in technical school or undergraduate programmes at a university. Four of the respondents indicated completion of study programmes at a graduate level. Nevertheless, 12 respondents (10%) reported educational levels of grade 10 or less. In contrast, 45 of the respondents' spouses (37%) reported educational levels of grade 10 or less, while the remaining respondents (n = 78: 63%) indicated completion to some extent, secondary and post secondary study.

The majority of farms on which the women in this study lived, averaged approximately 300 acres with a size range of 75 to 1500. Eighty-one of the farm operations (63%) recorded acreage below the average. Farm operations generally were restricted to the production of grain crops (n = 89: 69%), while some (n = 19: 15 %) specialized in the production of fruits and vegetables. Still others (n = 21: 16%) were

Table Two**Level of Education of Farm Women and Their Spouses**

Level of education	Women		Men		Total	
	N	%	N	%	N	%
< Gr. 10	12	10	45	37	57	23
Gr. 11-13	48	40	35	28	83	34
Technical or trade school	34	28	24	20	58	24
University	27	22	19	15	46	19
Non credit courses	0	0	0	0	0	0
Correspondence	0	0	0	0	0	0
Other	0	0	0	0	0	0
Total	121	100	123	100	244	100

involved in beef, poultry, and pork areas of the industry.

Farm women in this study were all employed primarily in the farming operation. An average of 21 years in farming were reported with a range of 2 to 49. Many of the respondents (n = 87: 67%) originated from a farming background, however, some women (n = 42: 33%) reported not having any background in farming. For those women who reported having a farm background, 14 (11%) indicated farm roots of two generations or more, while an additional 23 (18%) and 32 (25%) reported a history in farming of three and four generations, respectively. In contrast, spouses were reported to have even longer legacies in farming with 43 men (33%) reporting rural roots of at least four generations.

In summary, the demographic profiles indicated that most farm women were educated (n = 109: 90%) with more than Gr. 10 levels and married (n = 125: 97%). Differences occurred in the size of farm operation with more women (n = 81: 63%) reporting farm sizes of under 300 acres. Also, one-third of the farm women (n = 87: 67%) did not originate from a farming background. Finally, (n = 30: 23%) reported having no dependent children.

Demands and Responsibilities Associated with the Roles of the Farm Woman

Farm women's responsibilities concentrated primarily on the domestic running of the household. Additionally, farm women were also involved in varying capacities, in the administrative aspects of the farm operation. There was a tendency for women over 40 years of age ($n = 49$: 38%), to be more actively involved in the managing of farm accounts ($X = .016, p < .05$). It was rare for the farm woman to be regularly involved in the direct production or maintenance activities of the farm operation (see Table 3).

Women, nevertheless, shared farm roles. This sharing however, occurred primarily in an ancillary capacity to their spouses (see Table 4). For example, many farm woman ($n = 88$: 68%) shared responsibility for the collection and delivery of farm-related parts and supplies; others ($n = 63$: 50%) reported the sharing of labour in certain field tasks, for example, harvesting. However, there was a tendency for women, with children under 10 years of age ($n = 15$: 19%), to be less involved in the delivering of supplies ($X = .041, p < .05$). Similarly, women with younger children ($n = 18$: 23%) were less involved in ploughing activities ($X = .011, p < .05$). Conversely, sharing of domestic

Table Three**Farm Women's Responsibilities and Demands According to their Roles****n = 129**

Nature of the activity	Regularly		Occurrence levels Sometimes		Never		Missing	
	N	%	N	%	N	%	N	%
A. <u>Housework</u>								
Washing, cooking, cleaning	121	94	4	3	1	1	3	2
Family shopping	120	93	6	5	1	1	2	1
Care for children	78	60	11	8	1	1	39	31
Entertaining	31	24	56	44	11	8	31	24
Care for aged/ ill	13	10	9	7	3	3	104	81
B. <u>Administration</u>								
Paying farm bills	73	57	32	25	18	14	5	4
Keep farm account	71	55	25	20	27	21	6	5
Income Tax Preparation	34	26	19	14	60	47	16	13
Deal with Wholesalers	13	10	34	26	57	44	25	20
Livestock accounts	15	11	5	4	23	18	86	67
C. <u>Farm maintenance</u>								
Pick up parts	35	27	75	58	14	11	5	4
Repairs to machinery	1	1	20	15	99	77	9	7

table continues

Nature of the activity	Regularly		Occurrence levels				Missing	
	N	%	Sometimes N	%	Never N	%	N	%
D. <u>Field work</u>								
Harvesting	27	21	43	33	52	41	7	5
Ploughing, cultivating, seeding	23	18	43	33	56	44	7	5
Application of Chemicals	5	4	14	11	100	78	10	7
E. <u>Chores</u>								
Help with farm animals	9	7	21	16	16	12	33	65
Feed and water livestock	8	6	27	21	12	9	82	64
Perform	3	2	11	9	30	23	85	66

Table Four**Division of Labour According to Roles**

Nature of the activity	Shared		Individual		Missing	
	N	%	N	%	N	%
<u>A. Farm Maintenance</u>						
Pick up parts	88	68	28	22	13	10
Repair to machinery	22	17	82	64	26	20
<u>B. Administration</u>						
Pay farm bills	65	50	53	41	11	9
Keep farm accounts	45	35	72	56	12	9
Income tax preparation	28	22	73	57	28	21
Deal with wholesalers	38	30	55	43	36	28
Livestock accounts	11	8	25	20	93	72
<u>C. Field Work</u>						
Harvesting	63	50	49	38	17	13
Ploughing, cultivating, seeding	58	45	56	43	15	12
Application of Chemicals	17	13	93	72	19	15
<u>D. Housework</u>						
Entertaining	57	44	28	22	44	34
Care for children	53	41	36	28	40	31
Washing, cooking, cleaning	29	22	93	72	7	6

table continues

Nature of the activity	Shared		Individual		Missing	
	N	%	N	%	N	%
Shopping	25	19	97	75	7	6
Care for aged/ill	12	9	12	9	105	83
E. <u>Chores</u>						
Feed and water livestock	33	26	8	6	88	68
Help with farm animals	28	22	12	9	89	69
Perform milking	13	10	25	19	91	71

duties (washing, cleaning) was occasionally reported. Women who were required to work in direct production and maintenance activities of the farm, were asked what child care provisions were available to them under these circumstances. When arrangements could not be made with extended family, farm women reported that they brought their young children to the work sites.

Overall, farm women reported that they were satisfied with the delineation of their roles (see Table 5). However, some dissatisfaction with respect to traditional responsibilities of grocery shopping (n = 22: 17%) and with laundry and cooking (n = 17: 13%) were noted. As well, Chi Square analyses were performed on the age of the farm woman and stress related to her family responsibilities. Although family responsibilities were a concern for the majority of women, those women under the age of 40 (n = 32: 33%), expressed more demands with respect to these duties ($\chi^2 = .007, p < .05$). Home production activities were considered important in the perceptions of the farm women. For example, meal preparation (n = 116: 90%), canning preserves (n = 76: 60%) and home gardening (n = 48: 37%) were the most frequently reported activities of importance. Some women indicated involvement in cottage industry activities such as egg

Table Five**Level of Satisfaction with Farm Role and Division of Labour**

Nature of the activity	N	Yes %	N	No %	N	Missing %
<u>Farm maintenance</u>						
Pick up parts	111	86	1	1	17	13
Repair to machinery	90	70	3	2	30	28
<u>Field Work</u>						
Harvesting	107	83	1	1	20	16
Ploughing, cultivating, seeding	103	80	4	3	22	18
Application of fertilizers	104	81	1	1	22	19
<u>Administration</u>						
Paying farm bills	103	80	10	8	16	12
Keep farm accounts	99	77	12	9	18	14
Income tax preparation	86	67	8	6	35	28
Deal with wholesalers	79	61	4	3	46	36
Keep livestock accounts	32	25	3	2	94	73
<u>Household</u>						
Shopping	95	73	22	17	12	10
Washing, cooking, cleaning	91	70	17	16	21	14

table continues

Nature of the activity	Shared		Individual		Missing	
	N	%	N	%	N	%
<u>Household cont'd</u>						
Care for children	73	56	9	7	47	37
Entertaining	68	53	6	5	55	42
Care for aged/ill	19	15	2	1	108	84
<u>Chores</u>						
Feeding the animals	38	29	0	0	91	71
Help with farm animals	35	27	0	0	94	73
Milking	30	23	1	1	98	76

production or providing bed and breakfast services (n = 21: 16%).

Over two-thirds of the farm women did not receive a wage for their farm and home-related responsibilities (n = 79: 61%), although 31 women (24%) indicated they would like financial recognition for these endeavours.

Approximately one-half of the respondents reported off-farm employment in both, full and part-time capacities(n = 62: 43%). The incidence of off-farm employment was divided into groups of those respondents who held off-farm (n = 62) and those who did not (n = 67). Where applicable, variables that related to off-farm endeavours were described according to calculations derived from the totals of the respective sub-groups.

Women under the age of 40 (n= 35: 27%) were more often employed off -the-farm ($X = .002$, $p < .05$). Farm women who were employed off-the-farm were represented in most sectors of the job market (see table 6). For example, employment in professional sectors represented 34% (n = 21) of the sub-group. Farm women under 40 years of age (n = 15: 12%), were more apt to report employment of a professional nature ($X = .004$, $p < .05$). Regardless, women (n = 33: 33%) with university studies reported a higher incidence of off-farm

Table Six

Occupational Categories
n= 129

Occupation	Total	%
Profession	21	16
Service	14	11
Clerical	14	11
Farm Labour	9	7
Manufacturing	3	2
Fishing	1	1
Missing	67	52

employment ($X = .004$, $p. < .05$). Farm women were equally represented in the service and clerical sectors of the employment markets.

Similarly, some farm women ($n = 14$: 21%) who were not currently involved in employment outside the home and farm, reported being receptive to the idea of obtaining off-farm employment.

The duration of off-farm employment, for most farm women, involved periods of five years or more ($n = 31$: 50%). Status of their employment was almost equally divided between full-time ($n = 32$: 52%) and part-time ($n = 30$: 48%). Women under the age of 40 ($n = 20$: 16%), were more apt to be employed on a part-time basis ($X = .003$, $p. < .05$). Financial gain was overwhelmingly reported as the primary motivator behind the sub-group's decision to work ($n = 61$, 98%). Most farm women reported that some of their earnings were used to subsidize the farm operation ($n = 9$: 14%), however, few reported that substantial amounts of their earnings were allocated in this way ($n = 8$: 13%). These categories were collapsed to reflect the low frequencies. The seven point Likert scale was reduced to the following three point scale: little; some; and a lot. Farm women were almost equally divided on the importance of their off-farm income to the farm operation. Some ($n = 22$: 35%) reported that their financial contributions were

relatively unimportant to the farm operation, while ($n = 32$: 52%) reported that they were making a substantial contribution. Conversely, the farm women's spouses were reported to consider the woman's financial contributions of more importance than the farm women did themselves ($n = 39$: 63%). These categories were reduced from a seven point Likert scale to a three point scale which included : relatively unimportant; some importance; and substantially important. Children ($n = 18$: 41%), who reported that they believed their mother's off-farm employment had a positive impact on their lives, tended to be over the age of 10 ($X = .015$, $p < .05$). Farm women, in general, reported that they were satisfied with their off-farm endeavours, however, ($n = 22$: 35%) disclosed some sense of dissatisfaction. Women satisfied with their off-farm endeavours ($n = 32$: 66%) generally reported holding professional kinds of employment ($X = .012$, $p < .05$). Women over the age of 40 ($n = 40$: 31%) did not express satisfaction or dissatisfaction with their employment ($X = .002$, $p < .05$). These categories were again collapsed because of their low frequencies. Scales were reduced from seven points to three points and included: dissatisfied, neither satisfied or dissatisfied and satisfied.

Spouses of farm women reported off-farm incomes with equal frequencies (n = 65: 50%). Of those men reporting off-farm employment (n = 23: 37%) reported their employment to be of a full-time nature. Similarly, the women specified financial reasons for their spouses seeking and obtaining employment separate from the farm. Corresponding comparisons were observed with respect to the percentages of off-farm income being re-directed to the farm operation. Similar to the farm women, some farm men were reported to re-direct substantial portions of their off-farm income to the farm operation (n = 15: 23%) while many reported only marginal amounts being so committed. Again, calculations of off-farm employment variables were based on the sub-group reporting off-farm employment (n = 65). Overall, employment of both spouses in the household was reported by 45 respondents (36%); for the wife only (n = 16: 13%); for the spouse only (n = 20: 16%); no off-farm employment was reported by 44 respondents (35%).

The farm women's involvement in the financial planning and decision making aspects of the farm operation varied. Significant involvement in these aspects was reported by 57 respondents (44%), while an additional 29 respondents (22%) reported shared decision

making with respect to financial matters. Marginal involvement in this process was reported by 41 respondents (32%). The categories were merged for this analysis, to reduce the seven-point Likert Scale to three: marginal; shared; and significant. The categories were collapsed because of their low expected frequencies.

Farm women reported increases, in the last decade, in the total value of the farm assets. Assets included livestock, buildings, equipment and land. More than one-half of the respondents ($n = 76$: 59%) reported such increases, whereas 19 respondents (15%) reported that they perceived no such changes. The remaining farm women ($n = 33$: 26%) reported decreases in their asset values. Chi Square was performed on the variables of age and change in assets. Farm women over the age of 40 reported both increases ($n = 37$: 29%) and decreases ($n = 24$: 19%), whereas women under the age of 40 ($n = 39$: 30%) reported basically increases only ($X = .039$, $p < .05$). When increases in equity were reported, ($n = 78$: 60%), it was generally the result of capital acquisitions or improvements. For those reporting decreases, deflation was generally attributed as the reason for the decline in their assets values ($n = 28$: 22%). Again, the scales were merged to reduce the categories to the following three: decreased, same or increased, as

frequencies were expected to be low.

Farm women reported that they tended to be conservative in their spending practices (see Table 7). When asked if expenditures in a number of home and farm related areas were necessary, the majority of respondents reported them not to be essential. For example, spending in the areas of new farm buildings (n = 80: 62%), renovations to buildings (n = 82: 63%) and car purchase (n = 96: 75%) were generally not incurred. Others reported spending in items, however, these expenses were reportedly incurred reluctantly. Expenditures in the areas of new machinery (n = 25: 19%) and repairs to machinery (n = 36: 28%) were incurred but these respondents reported that they were not in a financial position to do so. Similarly, others reported the need to purchase new farm machinery (n = 31: 24%) or make an addition to their home (n = 30: 23%) but reportedly chose to defer these expenditures. These women said that they, too, could not absorb the cost of these items. Finally, other respondents reported an ability to spend on farm (machinery) and home (addition) related purchases (n = 41: 32%; and n = 12: 10%, respectively). In general, however, no major capital outlays were reported.

A convincing majority of farm women reported financial

Table Seven

Spending Patterns

Nature of Expense	No, Did Not Need To N	Yes, But Could Not Afford To N	No, Could Not Afford To N	Yes, Could Afford To N	Missing N					
Construct new furniture	110	85	1	1	12	10	3	2	3	2
Purchase new car	96	75	5	4	22	17	2	1	4	3
Addition farm house	83	65	2	1	30	23	12	10	2	1
Renovate to new farm building	82	63	6	5	24	19	14	11	3	2
Construct new building	80	62	5	4	30	23	10	8	4	3
Purchase appliance	72	56	10	8	17	13	28	22	2	1
Repair farm building	66	51	8	6	22	17	32	25	1	1
Purchase furniture	61	47	6	5	24	19	36	28	2	1
Purchase clothing	60	47	10	8	7	5	43	33	9	7
Repair farm house	59	46	11	9	25	19	31	24	3	2
Repair farm machinery	39	30	36	28	6	5	45	35	3	2
Purchase machinery	31	24	25	19	31	24	41	32	1	1

solvency in their farm operations (n = 97: 75%). Financial uncertainty was experienced for a smaller percentage of the farm woman surveyed (n = 22: 17%), while an additional (n = 9: 7%) reported fairly unstable situations. These categories were collapsed from a seven to a three point scale: stability, uncertainty; or instability. Nevertheless, most farm women reported that, if necessary, they had re-financing options available to them. These options included off-farm employment as well as re-mortgaging options (see Table 8). Off-farm employment was reported to evidently be the preferred option (n = 66: 51%).

Clearly, most respondents perceived a decline, in the last decade, in the status of the farming community (n = 119: 92%). Reasons for the decline, as reported by the farm women, varied (see table 9). Product prices, input prices and interest rates were reported to have had an adverse impact on the viability of the farming community. Respondents were also disappointed with the government's lack of concern for the farm family. Individual farm management, the strategies the farm family uses to operate the land, was the only factor farm women suggested had a favourable impact on their personal lives. Categories were reduced from seven points to

Table Eight**Re-Financing Options
n=129**

Method	Certainly Consider		Perhaps Consider		Reluctantly Consider		Missing	
	N	%	N	%	N	%	N	%
Take off farm	66	51	10	8	17	13	36	28
Lease land	33	25	25	20	41	32	30	23
Sell machinery	19	15	21	16	31	24	58	45
Sell land	28	23	19	15	53	39	30	23
Remortgaging	16	13	25	20	47	36	41	31
Sell livestock	9	7	8	6	11	9	101	78

Table Nine

Factors Affecting the Status of the Farming Community
n=129

Variables	Bad Effect		No Effect		Good Effect		Missing	
	N	%	N	%	N	%	N	%
Product prices	125	97	0	0	1	1	3	2
Input prices	117	90	2	1	2	1	9	7
Interest rates	106	82	10	8	8	6	5	4
Government priorities	109	85	3	2	10	8	7	5
Individual farm management	38	28	30	23	50	39	11	10

three points because of their low frequencies. The reduced categories were: bad effect; no effect; and good effect.

Demands or Expectations of the Farm Woman of her Environment

Despite their uncertainties, farm women reported that they continued to believe that the farm still offered a lifestyle conducive to the positive growth and development of a family ($n = 121$: 94%) (see Table 10). As well, they reported remaining committed to the preservation of the land for future generations. More and more farm women, however, reported to be questioning the farm operation's ability to allow the family to live independently on the land ($n = 47$: 36%). As well, doubt and dissatisfaction appeared to exist in the minds of many, with respect to the farm operation's ability to provide an adequate financial lifestyle ($n = 74$: 57%). These categories were collapsed because of their low distribution scores. The seven point Likert scale was reduced to three points and included the following categories: dissatisfied; neither satisfied nor dissatisfied; and satisfied.

Chi Square analyses were performed on the expectations farm women had of their environment and off-farm employment (see Table 11). The necessity for off-farm employment was reported to interfere

Table Ten**Expectations of Farm Women and Corresponding Levels of Satisfaction**

Expectation	Strong Satisfaction		No Satisfaction or Dissatisfaction		Strong Dissatisfaction		Missing	
	N	%	N	%	N	%	N	%
Good place to raise family	121	94	4	3	4	3	0	0
Preservation of land	72	56	24	19	30	23	3	2
Live independently on land	53	41	28	22	47	36	1	1
Financial adequacy	32	25	21	17	74	57	2	1

Table Eleven

Perception of Expectations and Self as they Relate to Incidence of Off-Farm

Perceptions	Yes		Off-farm		No		Missing		Probability
	N	%	N	%	N	%	N	%	
Ability to be satisfied with life	37	29	55	43	2	1			.002
Ability to feel secure	27	21	43	34	4	3			.047
Ability to preserve land	27	21	45	35	1	1			.011
Ability to achieve financial success	22	18	43	34	4	3			.002
Ability to live independently from land	17	13	36	28	1	1			.003

*p<05

with these expectations. For example, farm women (n = 37: 29%) who had off-farm employment reported being less satisfied with their lives than farm women (n = 55: 43%) who did not have employment ($X = .002$, $p < .05$). Similarly, farm women who had off-farm (n = 27: 21%) reported being less satisfied with their ability to preserve the land than farm women (n = 45: 35%) who did not have this employment ($X = .011 < p < .05$).

Levels of Stress and Associated Environmental Contributors

Most farm women believed that they had been able to confront and contend with the stress in their lives (n = 113: 87%). When asked to measure current levels of stress, the farm women's responses provided a fairly detailed picture (see Table 12). The majority of farm women believed that they were coping with their stress (n = 53: 41%), while others reported their stress levels as being manageable (n = 15: 12%) or positive (n = 11: 8%). Nevertheless, some reported experiencing some difficulty coping with stress. Those women that disclosed difficulty in coping, reported stress levels as either disruptive (n = 19, 15%), concerning (n = 6; 5%) or damaging (n = 4; 3%). Few women reported receiving treatment for stress related illnesses (n = 5: 4%).

Table Twelve**Incidence of Stress
n-129**

Level of Stress	N	%
Positive	11	8
Manageable	15	12
Marginal	15	12
Coping	53	41
Disruptive	19	15
Concerning	6	5
Damaging	4	3
Missing	6	4

Farm women, in this study, reported experiencing stress related symptoms on a broad range of physiological and psychological indicators (see Table 13). The categories that were used to measure the stress, were merged from a seven point Likert Scale to the following three categories: increased; same; and decreased stress. The categories were collapsed because of their low expected frequencies. The incidence of missing was observed on several stress-related variables. The responses that were recorded as "not applicable," together with the unanswered responses, were grouped and coded as "missing" for the purposes of this study. Nevertheless, frustration (n = 76: 60%), mental fatigue (n = 62: 48%) irritability (n = 51: 39%) and anger (n = 51: 39%) were the symptoms of stress most frequently reported by the respondents to have increased in intensity. Others reported manifestations of stress to include indecision (n = 31: 24%) and crying (n = 22: 17%), while extreme signs of suicide (n = 4: 3%) were rarely specified.

Chi Square analyses were performed on stress symptoms and the farm woman's perception of the farm operation's ability to provide an adequate financial living (see Table 14). Farm women, who were dissatisfied with the farm's ability to adequately finance their living,

Table Thirteen**Stress Related Symptoms
n-129**

Symptom	Increase		Same		Decrease		Missing	
	N	%	N	%	N	%	N	%
<u>Psychological</u>								
Frustration	76	60	15	11	14	10	24	19
Mental fatigue	62	48	16	13	10	7	41	32
Irritability	51	39	35	27	11	9	32	25
Anger	51	39	29	24	9	6	40	31
Depression	44	34	21	16	12	10	52	40
Marital stress	40	31	35	27	12	9	42	33
Communication with spouse	36	28	53	41	24	18	16	13
Indecision	31	24	41	32	10	8	47	36
Guilt	26	20	29	23	11	9	60	48
Hostility	26	20	23	18	7	5	72	55
Loneliness	21	17	30	23	13	12	62	48
Crying	22	17	38	30	15	12	52	41
Personal appearance	12	9	40	31	15	12	62	48
Alcohol consumption	6	5	11	8	15	12	97	75
Suicidal thoughts	4	3	9	7	6	6	108	84
Drug consumption	3	2	7	5	6	5	113	88
Abusing others	2	1	2	1	3	2	122	95
Victims of abuse	1	1	2	1	1	1	125	97

table continues

Symptom	Increase		Same		Decrease		Missing	
	N	%	N	%	N	%	N	%
<u>Physiological</u>								
Weight change	42	33	26	20	10	7	51	40
Muscle tension	38	29	34	27	7	6	50	38
Headaches	32	25	30	24	11	8	56	43
Sleepiness	33	26	31	24	7	5	58	45
Illness	28	22	33	26	7	7	58	45
Upset stomach	21	16	18	14	7	5	83	65
Heart palpitations	16	13	22	17	6	4	85	66
Blood pressure	15	12	44	34	3	2	67	52
Ulcers	11	8	11	8	4	3	104	81
Change in sexual activity	9	6	47	37	37	29	36	28

Table Fourteen

Symptoms of Stress as they Relate to Level of Satisfaction with Financial Adequacy

Symptom	Dissatisfied		Satisfied		Neither Satisfied/ Dissatisfied		Missing		Probability
	N	%	N	%	N	%	N	%	
Frustration	54	53	16	15	5	5	26	20	.003
Irritability	39	41	8	8	4	4	34	26	.025
Anger	38	43	8	9	4	4	41	32	.035

*p<.05

demonstrated clear signs of frustration, irritability and anger. Twenty-five women with farm background (33%), reported depression symptoms ($X = .05$, $p < .05$).

Few women reported a high incidence of behavioural change in their children (see Table 15). Increases in fighting ($n = 15$: 12%) and aggressive behaviours were, however, reported. Misbehaviour in school was reported by only two respondents. When stress symptoms were reported in their children, farm women attributed the change to normal developmental activity of their children ($n = 20$; 15%).

Farm women's perceptions of the environmental stressors, associated with their stress, varied (see Table 16). Responses were grouped, according to their farm, family and financial characteristics. Inadequate profits ($n = 70$: 54%), inclement weather ($n = 67$: 52%) and machinery breakdowns ($n = 39$: 30%) were reported by farm women to have had a significant effect on their increased levels of stress. In contrast, lack of community ($n = 17$: 13%) and family support ($n = 7$: 5%) appeared to be of lesser significance. These categories were again collapsed to reduce the seven point Likert scale to a three point scale due to their low expected frequencies. These categories were: significant effect; some effect; and insignificant effect.

Chi Square was performed on the collapsed stressors perceived by the farm women and the farm operation's ability to provide an adequate living (see Table 17). Stressors were categorized according to

Table Fifteen

**Stress Related Symptoms in Children
N=129**

Symptom	Increase		Same		Decrease		Missing	
	N	%	N	%	N	%	N	%
Fighting	15	12	25	19	11	9	78	60
Aggressive behaviour	14	11	21	16	6	5	88	68
Lack of Interest in school	10	8	13	10	7	5	99	77
Unable to sleep	8	6	12	9	11	9	98	76
Lack of attention	6	5	19	15	6	4	98	76
Change in eating habits	5	4	19	15	5	4	98	76
Day dreaming	4	3	24	19	7	5	94	73
Withdrawn	4	3	8	6	7	5	110	86
Anger	15	12	24	19	11	8	79	61
Misbehaviour in school	2	1	13	10	7	5	105	84

Table Sixteen**Environmental Stressors as Perceived by Farm Women**

Stressor	Significant Effect		Same Effect		No Effect		Missing	
	N	%	N	%	N	%	N	%
<u>Financial</u>								
Lack of profit	70	54	14	11	19	15	27	20
Financial difficulties	51	39	24	19	22	17	32	25
Spending money on on farm machinery	44	34	29	22	22	17	34	27
Spending money on a holiday	42	32	23	18	35	28	29	22
Off farm	34	27	16	12	17	13	62	48
Spending money on household	22	15	36	28	41	32	32	25
Spending money on self	11	8	29	25	57	44	32	25
<u>Family</u>								
Family responsibilities	47	37	26	20	21	16	35	27
No leisure time	49	38	24	19	26	20	30	23
Personal relationships	18	14	28	22	46	35	37	29
Lack of community support	17	13	13	10	45	35	54	42
Lack of family support	12	9	17	13	60	47	40	31
Lack of spousal support	12	9	18	14	56	43	43	34
Limiting kids activities	13	10	18	14	32	25	66	51
Travelling to work	6	5	11	8	12	9	100	78

table continues

Stressor	Significant Effect		Same Effect		No Effect		Missing	
	N	%	N	%	N	%	N	%
<u>Farm</u>								
Inclement weather	67	52	20	16	15	12	27	20
Farm responsibilities	47	37	26	20	21	16	35	27
Machinery breakdowns	39	30	32	25	27	21	31	24
Sick animals	6	5	8	6	23	18	92	71
Boarding help	6	5	11	8	12	9	100	78

Table Seventeen

Environmental Stressors as they Relate to Level of Satisfaction with Financial Adequacy

Stressor	Dissatisfied		Satisfied		Neither Satisfied/ Dissatisfied		Missing		Probability
	N	%	N	%	N	%	N	%	
<u>Financial</u>									
Lack of profit	53	53	13	13	3	3	28	22	.000
Financial difficulty	42	44	7	7	2	2	33	26	.000
<u>Family</u>									
Family responsibilities	36	37	12	12	4	4	32	25	.043
Lack of money for holiday	30	30	8	8	3	3	30	23	.028
<u>Farm</u>									
Farm responsibilities	37	40	10	11	0	0	28	22	.000
Spend money on farm machinery	34	36	8	8	2	2	34	26	.001
Machinery breakdowns	28	29	7	7	4	4	32	25	.033

*p<.05

financial, family and farm characteristics. Financial indicators were perceived by most to have had an adverse impact on their level of satisfaction with their personal situations. For example, lack of profit ($n = 53$: 53%) was attributed as the most crucial environmental contributor to their stress. Those respondents who reported off-farm activity ($n = 43$: 42%), also reported lack of profit as a stressor ($X = .022$, $p < .05$). For others with off-farm employment ($n = 34$: 35%), family responsibilities were reported as stressors ($X = .050$, $p < .05$).

Farm families are often characterized to have resilient natures. Hence, when asked if they were prepared to continue to farm, regardless of current circumstance and adversities, almost all farm women replied that they would ($n = 121$: 94%). However, when asked if they wanted their children to continue their farming legacies, a considerable but lesser number ($n = 39$: 30%) indicated they did not want their children to continue in farming.

The Farm Woman's Resources

Farm women theoretically have a variety of resources available to them. This study categorized these resources as being family, self and community.

Respondents, when asked to characterize the extent and quality

of their relationships with their families and community (see Table 18), generally speaking, reported very favourable relationships. The majority disclosed that their families experienced a sense of mutual love (n = 118: 92%) and respect (n = 111: 86%) that bonded their families together. Church involvement was also viewed as being a vital aspect of their lives (n = 94: 73%). Again, the categories were collapsed from seven points to the following three: almost always true; sometimes true; and almost never true.

On the whole, farm women described their lives in a rather positive fashion (see Table 19). Most respondents characterized their lives as being worthwhile (n = 109: 85%), while 90 respondents (71%) maintained hope for their futures. Optimism began to diminish when they were asked to speculate on their financial position (n = 45: 50%). The seven point Likert scale was reduced to three points due to low expected distributions. The categories were: disagree; neither agree nor disagree; and agree. Nevertheless, when asked if they believed the farm operation could survive without their involvement, two-thirds of the respondents indicated that their families could not operate without their personal contributions. Those women (n = 54: 69%)

Table Eighteen

Farm Women's Perception of Family and Community Relationships
n=129

Perception of Relationship	Almost Always True		Sometimes True		Almost Never True		Missing	
	N	%	N	%	N	%	N	%
Mutual love	118	92	7	5	1	1	3	2
Mutual respect	111	86	11	9	5	4	2	1
Ability to show appreciation	110	85	13	10	6	5	0	0
Permit individual uniqueness	110	85	11	9	6	5	2	1
Many friendships	90	70	16	12	11	8	12	10
Enjoy activities together	97	75	19	15	11	9	2	1
Caring community	93	73	20	15	12	9	4	3
Importance of church involvement	94	73	15	12	20	15	0	0
Family flexibility	92	71	23	18	12	10	2	1
Ability to accept differences	92	71	28	22	8	7	1	1
Good communicative patterns	92	71	28	22	8	7	1	1

Table Nineteen

Farm Woman's Perception of her Life
n=129

Perception	Generally Agree		Neither Agree or Disagree		Generally Disagree		Missing	
	N	%	N	%	N	%	N	%
Good health	110	86	8	6	8	6	3	2
Worthwhile	109	85	11	8	5	4	4	3
Happy	109	85	15	12	3	2	2	1
Friendly	104	80	15	12	9	7	1	1
Succeeding	96	74	19	15	9	7	7	4
Satisfied	92	71	13	10	22	18	2	1
Hopeful	90	71	19	15	17	13	3	2
Secure	70	54	33	26	22	17	4	3
Financially secure	65	50	25	20	35	27	4	3
Relaxing	60	47	40	31	26	20	3	2

who reported that they believed the farm operation could not survive without them, had dependent children ($X = .050$, $p < .05$).

With respect to their macro-environments, government and the economy, farm women reported that they could exercise little control over these factors in their lives (see Table 20). Most believed that they could not influence decisions at the more global levels of society. For example, most reported that they could do little, personally to influence government decision making ($n = 122$: 95%). Similarly, many reported being equally helpless with respect to influencing the economy in general ($n = 113$: 88%).

Emotional support was derived primarily through their associations with family and friends (see Table 21). Most reported to be satisfied with this arrangement. The farm woman's spouse was most frequently chosen as the source of her emotional support ($n = 81$: 63%). Few ($n = 5$: 4%) reported the necessity to seek support from external sources such as professional counselling.

Farm women reported regular involvement in some kind of social activity (see Table 22). Activity in church related functions appeared to be the preferred social outlet ($n = 75$: 58%), followed by involvement in charity organizations ($n = 47$: 36%). Farm women

Table Twenty

Farm Women's Sense of Mastery as it Relates to Macro Environment
n=129

Variable	Yes		No		Missing	
	N	%	N	%	N	%
Ability to influence government	122	95	0	0	7	5
Ability to control state of country	113	88	5	4	11	8
Ability to control inflation	92	71	27	21	10	8

Table Twenty-one

Source of Emotional Support and Corresponding Levels of Satisfaction
n=129

Source of Support	Very Satisfied		Neither Satisfied or Dissatisfied		Very Dissatisfied		Missing	
	N	%	N	%	N	%	N	%
Spouse	81	63	15	11	11	9	22	17
Friend	53	41	28	22	3	2	45	35
Family	53	41	20	16	9	7	47	36
Minister	27	20	9	7	6	5	87	68
Doctor	16	12	16	12	8	7	90	70
Professional	6	4	1	1	2	2	120	93

Table Twenty-two**Sources of Social Support
n=129**

Type of Organization	Regularly Involved		Sometimes Involved		Seldom Involvement		Missing	
	N	%	N	%	N	%	N	%
Church groups	75	58	18	14	36	28	0	0
Charitable organization	47	36	26	20	55	43	1	1
Community groups	39	30	34	26	47	37	9	7
Farm organizations	33	25	22	17	68	53	6	5
Sports clubs	33	25	3	2	85	67	8	6
Lodge	8	6	0	0	112	87	9	7
Political organizations	12	9	8	6	96	77	13	8

were rarely involved in political organizations ($n = 12$: 9%). Half of the women surveyed were content with their current involvement in outside activities. Those that reported dissatisfaction with the extent of their involvement reported "time constraints" as the predominate factor associated with their curtailed participation. Only 24 respondents (19%) reported feelings of isolation.

Chi Square was applied to the variables of church affiliation and factors relating to family and their perceptions of their lives (see Table 23). Church involvement had a definite impact on their belief, values and perceptions. For example, women ($n = 59$: 47%) who reported regular church attendance, also reported having a greater sense of hope with their lives ($X = .014$, $p < .05$). Women over the age of 40 ($n = 60$: 46%) reported to be more regularly involved in church activities ($X = .041$, $p < .05$).

Farm women appeared interested in information on a variety of subjects (see Table 24). Of primary interest was information on estate planning ($n = 55$: 43%) and retirement ($n = 55$: 43%). Women over the age of 40 ($n = 40$: 32%) expressed more interest in obtaining retirement information than women under the age of 40 ($n = 15$: 12%), ($X = .002$, $p < .05$). Information on parenting and stress

Table Twenty-three
Perception of Family and Life as they Relate to Church Involvement

Perceptions	Regularly N	Regularly %	Rarely N	Rarely %	Sometimes N	Sometimes %	Missing N	Missing %	Probability
Satisfied with level of happiness in family	66	52	32	25	11	9	2	1	.005
Satisfied with ability to succeed	62	50	23	19	11	9	5	4	.049
Satisfaction with life	61	48	21	17	10	8	2	1	.016
Level of hope	59	47	20	16	11	9	3	2	.014
Satisfied with flexibility in roles	57	45	21	17	14	11	2	1	.002

*p<.05

Table Twenty-four**Additional Information in Resources
n=129**

Subject	N	%
Estate planning	55	43
Retirement	55	43
Wills	52	40
Income tax	46	36
Property rights	47	36
Investment	44	34
Stress management	44	34
Capital gains	44	34
Marketing	41	32
Budget	40	31
First Aide	38	30
Insurance	25	20
Parenting	24	19
Communication	20	16
Marriage	21	16
Widowhood	12	9
Politics	12	9
Leadership	7	5
Divorce	5	4

management generated less interest in the respondents, while few expressed interest in topics such as divorce or politics.

Finally, women were given the opportunity, at the end of the questionnaire, to express any additional comments or perceptions. Many of the women (n = 61: 48%) took advantage of this opportunity. The majority of their criticisms (n = 58: 95%), focused on the lack of financial return for their investments. Many reported feelings of frustration, discouragement and anger with the current turn of economic events. These feelings were consistent with the findings of the study, generally.

DISCUSSION

This study examined the perception of stress in the lives of Essex County Farm Women. The Eco-system Model of Environmental Stress provided the conceptual framework for this study (Melson, 1983). It viewed stress as essentially originating from the external demands in one's environment. An analysis, then, of the demands of the farm women, within their immediate context of home, farm and family (meso-system) was discussed, however, it was only within the scope of this study to acknowledge, not analyze the demands placed on the farm women from the global contexts of their environment (macro-system). For example, the impact of domestic and foreign policy in agriculture on the farm women, although relevant, was not investigated. The concept of stress was defined as the conflict or lack of fit between the demands placed on farm women by their environment and the demands that farm women have of their environment. The ability to mitigate the harmful effects of stress was influenced by the quality, quantity and accessibility of the farm women's internal and external resources.

The discussion begins by addressing the following research questions:

- 1) What is the demographic profile of the farm woman?
- 2) What are the environmental demands occurring in the life of the farm woman?
- 3) What are the demands of the farm woman?
- 4) What are the farm woman's resources?
- 5) What is the level of stress (lack of fit) between the demands of the environment and demands of the farm woman?
- 6) What is the relationship between stress (lack of fit) and the environmental demands?
- 7) What is the relationship between stress (lack of fit) and the farm woman's demands?
- 8) What is the relationship between stress (lack of fit) and the farm woman's resources?
- 9) What is the relationship between stress (lack of fit) and the farm woman's demographic profile?

The results of the research questions are presented in relation to themes which occurred in the review of the literature. These results are followed by the implications of this research and discussion of the study's limitations. Finally, conclusions of the study and recommendations for future research are discussed.

Demographic Profile of the Farm Woman

Farm women, in this study, compared closely to the national averages, with respect to marital status, age, number of children and education (Smith, 1987). Essex County women were predominately married, under 45 years of age with an average of 2.4 children. With respect to age, farm women in this study, tended to be somewhat younger than their spouses. This age difference was also found in the Smith study (1987), as well as the Koski study (1982). With respect to children, the distribution of the number of children per family also compared closely to the national average, with women under the age of 40 reporting smaller families and older women reporting larger families. The trend toward smaller families appears to be developing, therefore, encouraging speculation that future generations in farming will be smaller.

In general, farm women and farm men of Essex County are reported to have higher levels of education than was reported in the national averages. Approximately 40% of the respondents in this study had completed grade 11-13 while only 25% of women, nationally, reported this achievement (Smith, 1987, p. 143). Similarly, 50% of Essex County women reported post secondary education experiences

while 33% of farm women, nationally, reported participation in such programmes. Farm women's educational achievements exceeded those of their spouses in both studies.

A substantial number of farm men (37%) locally, were reported to have grade 10 or less while 41% nationally, indicated such results. In this study, farm men reported secondary and post secondary experiences at 28% and 35%, respectively, compared to the national averages of 22% and 38%, respectively. The results of Koski's study (1982) yielded similar findings. She concluded that "farming by inheritance remains a male profession and that daughters of farmers were encouraged to learn other skills" (p. 16). Suspicions that the national averages may have increased somewhat, are plausible, as the statistics referred to in the comparison research were derived from the 1981 census. Overall, these findings, with respect to age, marital status, number of children and educational attainment were consistent with the Craig study (1984) that investigated farm women in the Grey-Bruce counties, in Southwestern Ontario.

Environmental Demands of the Farm Woman

The meso-systems, the physical contexts that engaged the farm woman and her family, are numerous, complex and challenging. This

study, however, concentrated its examination on the following three areas: 1) the farm 2) the family and 3) off-farm employment. The environmental demands, imposed on the farm women, as a result of their involvement in the above systems, were described with respect to their types and frequencies.

The workload distribution of farm women in Essex County was analysed, similarly, to that of the Smith study (1987). This study divided the farm women's work contribution into three categories: 1) Direct Involvement 2) Indirect Involvement and 3) Direct Assistance. The findings in this study, with reference to workload distribution, were similar to those of the Smith (1987) and Koski (1982) investigations. Farm women usually assumed full responsibility of the domestic affairs of the home. Meal preparation, laundry and cleaning tasks were performed regularly by 94% (n = 121) of the farm women in this study; 93% (n = 120) also did the family shopping. Approximately 75% (n = 99) of the respondents reported having children in the home. Arrangements for the care of the children appeared to be the responsibility of the woman, primarily. Of this group, 41% (n = 43) of the children were under the age of 10. Although the demands of children are great, at any age, children less

than 10 years of age, require more care than do older children. Approximately 33% (n = 32) of the women under the age of 40 who had children, reported family responsibilities as being "demanding". These young children also pose a special concern for farm women who are expected to contribute directly to the farm operation. Attending to active young children and the work at hand, simultaneously, increases the risk of accident or injury and hence, stress on the women, so responsible. Ginette Busque (1987), in her study, reported that 143 children, between the years of 1980 and 1981, were killed on Canadian farms. This statistic does not include those children who may have sustained permanent injuries (p.27). Women in Essex County recognized these risks, as women with children less than 10 years of age, reported less involvement in direct farm maintenance activities. Nevertheless, 15% (n = 19) of the women under the age of 40 years, reported bringing their children to their work sites. One plausible explanation for this occurrence might suggest a lack of appropriate day care for farm women.

Adolescents in the Essex County study constituted 33% (n = 32) of the child population. Adolescents, with respect to work load expectations, offer their own set of demands and are of a continuing

concern for the farm woman. Conflict over needs to express their independence, peer pressure and an unwillingness to share in farm chores, are issues with which farm women must contend.

The remaining 26% ($n = 25$) of the population, with respect to children, were over the age of 20. Young people of this age, would present concerns of yet a different nature, for the farm woman. Emotional worries are common among young people trying to establish an identity independent of their parents and peers. As well, financial obligations, such as cost of post-secondary pursuits, maintenance of vehicles, etc. are concerns shared by both child and parent.

Few farm women reported having the responsibility for the care of the aged or ill in their families. For those few however, there would be direct implications, with respect to the farm women's workload expectations. These would involve considerations of both a physical and emotional consequence. For example, ensuring that their aged parents are eating properly, or the worry of a medical emergency, are additional concerns for the farm woman.

Similarly, the Koski study (1982) reported that the domain for the household remained with the farm woman. Farm women, in her

nationally conducted study, were reported to contribute a minimum of 85% of their time toward domestic obligations. Results of the Smith study (1987) also confirmed the premise that household tasks remain almost exclusively the responsibility of the farm woman. She reports the results of two provincially conducted surveys. Farm women in Quebec (85%) as well as farm women in Alberta (90%), indicated that responsibility for the domestic needs of the home were assumed primarily by themselves (p.157).

With respect to the farm women's contributions directly to the farm operation, Essex County women had the tendency to work in an ancillary capacity. This study distinguished between "field and barn work" and "farm support, management and service work" (administrative and marketing duties). Approximately, 50% (n = 63) of the sample reported shared involvement in the harvesting aspects of the operation, while an additional 33% (n = 43) were involved on an occasional basis. As well, farm women were regularly involved in collecting and delivering equipment, parts and supplies. One would suspect that, for the most part, the farm woman's workload has seasonal variations. Koski (1982) also concluded that the farm woman's work schedule varied according to season. She reported that

between the months of May and November, farm women spent 31 hours, per week, performing farm work and 17 hours, per week, during the months of December to April. She, however, qualified these results by indicating that off-farm and other structural characteristics of the farm might affect these calculations (p. 28). For example, off-farm employment of the farm woman would make her less accessible during certain times of the day, thus restricting the farm man's ability to delegate certain tasks to the farm woman.

Furthermore, many of the Essex County farm women also reported active involvement in the administrative aspects of the farm operation. Paying the bills and keeping farm accounts and ledgers were the most frequently reported administrative tasks. The Smith analysis (1987) concluded that these activities together, (field and administrative) translated into an additional 18 hours a week, to the farm woman's workload. Differences in the research designs, between this study and the Smith study (1987), did not allow the farm woman's contribution to be calculated on an hourly basis. With respect to payment for services, one-third of the Essex County women reported receiving a wage from the revenues derived from the farm operation, for their farm and home related responsibilities; in contrast, both to

the Smith study (1987) and the Koski study (1982), reported that only one-fifth of their respective samples reported receiving wages for their contributions to farm work. Nevertheless, an additional 24% ($n = 31$) of the women in this study indicated that they would like to receive financial compensation for their home and farm-related efforts.

With respect to Direct Assistance of the farm woman, many of the respondents reported high levels of off-farm employment, both for themselves and their spouses. Approximately, one-half of the farm women and an equal one-half of farm men, in Essex County reported off-farm income, of various sorts. In contrast, the Craig (1984), Smith (1987) and Koski (1982) studies consistently reported off-farm employment to be one-third for both the farm women and their respective spouses. Similarly, Acock & Desrean (1986) reported that over one-third of all farm wives and over one-half of farm men were employed off-the-farm. In addition, the frequency with which farm families are utilizing this alternative form of income has increased disproportionately throughout the 1980's (Coward & Jackson, 1983; Molnar, 1985; Pugh, 1987; Walker & Walker, 1987). Support, for the high incidence of off-farm employment of farm women, is found in this study. Off-farm employment of farm women is, however,

dependent on a number of factors. These include the availability of off-farm employment opportunities, structural characteristic of the farm, age and education.

Increasingly, farm families are relying on the option of off-farm employment to augment their incomes. All the above mentioned studies invariably reported financial gain as the primary reason for obtaining off-farm employment. The Essex County study concurred with those results as well, however, over one-half of the respondents (56%) reported that only small amounts of this income was being re-invested into the farm operation. In contrast, the Smith study (1987) reported the results of another study that suggested that 35% of farm women, nationally, reported re-investing three-quarters of their salaries into the farm operation; Quebec respondents reported an even higher percentage of 42 (p. 158). Regardless of the purpose for which the off-farm incomes are designated, these figures convincingly support the argument that farm families are relying, more and more, on off-farm income to supplement their lifestyles. It was suspected, however, that farm women in this study were re-allocating their earnings toward their household expenses, as opposed to the farm operation itself. Suspicions of this nature were drawn as a result of the

farm women's admission that the motivation behind their off-farm endeavours was a consequence of financial need. Although indirect contributions of this nature are still considered a subsidization of the farm operation, this study, unfortunately, did not make this distinction and therefore, was not able to make this determination.

Interestingly enough, 45% of the women who reported off-farm employment, in this investigation, reported having jobs in the clerical and service segments of the economy, where wage levels generally remain marginal. Smith (1987) referred to these employment categories as being the "pink ghetto" and reported that 54% of her respondents, fell into this classification, for off-farm employment. The Koski study (1982) also made this distinction in employment classifications, with 29% reporting jobs in the clerical and service industries, however, 22% of the respondents in the Koski study (1982) classified their employment in a category called "other". Since no explanation of this category was offered, the possibility that an increase in the percentage of farm women falling in this category might exist. Nonetheless, 34% of the Essex County women employed off-the-farm, reported holding jobs of a professional nature. This distinction is important as farm women reported financial necessity as the reason for

seeking their off-farm employment. Ironically, many appear to be in jobs that lack sufficient remuneration.

Also worth recognizing, is the number of farm women who engaged in cottage industry activities such as egg production, farm vacations or babysitting. They represented 16% ($n = 21$) of this survey. Again, these measures, according to those surveyed, were implemented as alternative means whereby to augment their incomes.

Farm women also tended to be involved in various social activities outside the immediate contexts of their home, farm or employment. Participation in activities such as the church, community groups and farm organizations were reported by Essex County women. However, one-half of the women surveyed in this study expressed a desire to increase their involvement in such outside interests, yet, most reported that they were unable to do so because of time constraints.

Household responsibilities, tended generally to follow a "patriarchal" model. Essex County women reported having primary responsibility for the domestically-related tasks. An analysis of the farm woman's workload, as a result of her off-farm employment,

reported no appreciable changes. According to the Koski study (1982), contributions, with respect to division of labour, in these areas, were altered somewhat by off-farm endeavours; 87% of farm women, without off-farm employment, reported primary responsibility for domestically related tasks, compared to 84% with part-time and 79% with full-time employment. According to Koski, division of labour, with respect to farm related activities, decreased slightly for the farm women with off-farm employment.

In summary, the findings in this study supported the assertion that farm women engage in a multitude of roles, however, these roles tended to be traditional female roles, consistent with a patriarchal model. In addition to the traditional role of homemaker, farm women in Essex County reported being involved in varying capacities on the farm, with structural characteristics of the farm influencing the extent of this involvement. These farm women also indicated that they were engaged in off-farm activities, yet, no appreciable re-allocation of their roles was detected in their reports. The assertion, then, that farm women continue to assume a disproportionate amount of responsibility for the overall function of the farm operation, home and family, has also found support in this study.

Farm Women's Demands

Farm women's demands include the expectations which the farm women have of their environment. In this study, farm women, when asked to comment on the demands they had of the farm, generally, endorsed the principles of farming, consistent with agrarian philosophies. Lifestyle gratification, occupational independence and land stewardship are suggested in the literature, to be the most alluring qualities of farming (Boss, 1985; Clarke, 1986; Brooks, Stucker & Bailey, 1986; Davis-Brown & Salamon, 1987; Molnar, 1985). Almost 95% (n = 121) in this study remained undeterred by recent economic uncertainties, continuing to believe that farming was a lifestyle conducive to the positive growth and development of a family. As well, respect for and preservation of the land for future generations, remained a continued priority for farm women. Uncertainties, with respect to the farm's ability to allow the family to live independently from the land, were only partially endorsed. Doubts with respect to the farm operation's ability to provide an adequate financial lifestyle, emerged with greater frequencies. Their doubts were reported to be further reinforced by their reluctance to ask their children to commit to a vocation in farming (n = 39: 30%). Non-economic reasons, such as

the ability to live in concert with the land and their families, have provided the family with the determination to persevere in farming, despite times of economic adversity. However, the demand for financial stability is seen as being especially crucial, in a farming situation. Inseparability of the home and work, in conjunction with the loss of the farm operation, can translate into the loss of home, job and in many instances, the family legacy. Therefore compromise, with respect to the financial stability of the operation, must be carefully considered. Farm women, unfortunately, were reporting failed expectations, with respect to the farm's ability to provide an adequate lifestyle for themselves and their families. Understandably, unmet demands, or failed expectations, have the potential to generate stress, of an adverse nature, in farm women.

Incidence of Stress

Stress is defined as the conflict, or lack of fit, between the demands placed on the farm woman by her environment and the demands the farm woman places on her environment. Adaptation is defined as the process of accommodation, that occurs in response to the need to resolve the lack of fit, in order to restore stability and to promote growth in the individual. Demands are considered, expected

and continual, because of the dynamic and reciprocal nature of both the individual and the environment. The environment, that encompasses the individual, is considered all inclusive and incorporates both immediate and remote settings. A review of the demands that the environment imposes upon the farm woman, suggest that she, as a result of her participation in a multitude of simultaneous roles, might be at risk for stress. Further, a review of the demands that the farm woman has of her environment indicate that if the environment, as perceived by the farm woman, fails her expectations, stress, of an unwelcomed nature, will result.

Stress can manifest itself in numerous ways, according to various theories. Physiological and psychological indicators are generally used to measure the severity of stress levels. This study approached the measurement of stress from two perspectives. The primary perspective was the completion of a self-report stress-symptom scale. Respondents were asked to report perceived categories of stress by identifying statements outlining a broad range of physiological and psychological indicators on a seven point scale. Secondly, respondents were asked to specify intensity of their stress, by selecting the most appropriate category on a seven point scale, that

ranged from positive to damaging.

Overall, Essex County farm women reported "some measure of success" in coping with their current levels of stress. Nevertheless, 23% (n = 29) of the group reported experiencing "some difficulty coping". With respect to stress scores of a physiological and psychological nature, responses varied, however, some consistent patterns of reporting were observed. An analysis of the psychological manifestations indicated that, frustration of an increased degree was reported by 60% (n = 76) of the women who completed this section of the survey. As well, 39% (n = 62) of the farm women reported increased feelings of irritability and anger. With respect to physiological manifestations, 29% (n = 38) of the sample reported increased muscle tension, while 33% (n = 42) reported increased weight gain. The above indicators were defined in the study to be a measurement of stress.

The results of this study compare favourably with the results of similar studies undertaken by researchers Craig (1984), Walker & Walker (1987), Weigal (1986) and Hefferan & Hefferan (1986). Craig (1984) reported upon the manifestations of stress in farm women in the Grey-Bruce regions of Southwestern Ontario. Mental fatigue,

frustration and irritability were reported by over 40% of the Craig respondents. Sleeplessness and weight change were also reported by 30% of the respondents. Researchers Walker & Walker (1987), studied both farm men and women in Western Canada, concluding that almost half of the respondents reported symptoms of chronic fatigue, loss of temper and trouble sleeping. Farm women, in Walkers' study, showed higher symptom scores than did farm men.

Weigal (1981) also attempted to quantify stress symptoms among farm residents in northeastern Iowa. Physical discomfort, emotional outbursts, inability to relax, mental confusion, depression-anxiety, excessive fatigue and apathy were reported and listed in descending order (Weigal, cited in Olsen & Schellenberg, 1986). In contrast, the study on Essex County farm women did not yield results similar to the results of the Hefferan and Hefferan study (1986). They reported high frequency scores in the areas of: depression, withdrawal, physical aggression, confusion and excessive smoking and drinking. Participants in the Hefferan & Hefferan study differed from the study in Essex County, in that the Hefferans' sample consisted of farm families who had been displaced from their farms as a result of financial insolvency. One would suspect that displacement would

generate more extreme scores in behaviour than individuals who have not suffered the pain of foreclosure. Nevertheless, suspicions that the results of the Essex County findings, on the incidence of stress might be low, are plausible for various reasons. The literature suggests that farm families have a tendency to be somewhat fatalistic in nature, as a result of their constant exposure to various stressors inherent in the industry, for example, hazardous weather conditions (Boss, 1985). This passive acceptance of the fact that one has little control over the environment and that situations invariably resolve themselves in the end, lend suspicions that a certain amount of "denial" (Clarke, 1986; Zeller, 1986) may have altered adversely the response rates of the Essex County women. Additionally, culturally induced rural values, such as stoicism, self-help and independence (Boss, 1985, Clarke, 1976, Mermelstein & Sudet, 1986) may also have inhibited the farm women from being more candid in identifying stress-related symptoms. Finally, an inadequate concept of stress, on the part of farm women, might have adversely impacted on their scores. For example, farm women may not realize that behavioural problems in children might be a manifestation of personal stress on the family.

Farm Women's Resources

Resources are essential, with respect to an individual's ability to combat the adverse effects of stress. The conceptual framework for this study associated "coping" with family characteristics (income and education) and family functioning (decision-making and communication patterns (Melson, 1983). Inadequate structuring of these concepts lead to the incorporation of McCubbin and Patterson's definitions of the concept of resources, as an attempt to supplement the existing model. Although comparable in their theoretical constructs, McCubbin and Patterson's concepts of resources were considered more comprehensive, for the purposes of this study.

McCubbin & Patterson subsequently classified resources into the three categories. In the first category are personal resources which include the individuals finances, education (cognitive and problem-solving skills), health (physical and emotional) and psychological resources (self-esteem and mastery). The second category describes the family system's resources and includes the concepts of family cohesion and adaptability. Thirdly, social support resources include support at the interpersonal level (feelings of being valued and loved) as well as

social networks (extended family, church organizations etc. (McCubbin & Patterson, 1983; p.15-16).

Farm women in Essex County reported to have a variety of resources available to them. With respect to areas of personal resources, most farm women reported some measure of financial stability. Nevertheless, 24% (n = 31) did express concerns about a lack of financial resources. Educationally speaking, the majority of farm women reported secondary and post-secondary education. However, the questions did not specify whether successful completion of these programmes had occurred. Academic achievements, according to McCubbin and Patterson (1983), are important resources, in that the level of education is suggested to be a reflection of the individual's cognitive and problem-solving abilities. Further, few farm women reported major health problems.

With respect to their psychological resources, farm women, on the whole, reported a positive attitude toward themselves (self-esteem) but, in contrast, believed they could exert little control over the global aspects of their environment (mastery). The concept of mastery, according to McCubbin and Patterson, is important, as it is an indicator of the individual's perception of locus of control. For example, does the

individual perceive that their locus of control is external, thereby suggesting that they have little ability to control their environment.

With respect to family system resources, such as the cohesive nature of the family, respondents generally characterized their family relationships as being harmonious and complemented by a sense of mutual respect and love. A feeling of "togetherness" and "flexibility", as reported, also typify these families. Many derived emotional support, primarily from their spouses. A sense of shared decision-making, with respect to family and farm matters, was generally indicated, as well as an ability to communicate effectively with family members. Some farm women, however, reported lower scores in the quality of their communication skills. Shared decision making and good communication skills are especially important to a farm setting because of it encompassing both home and business.

With respect to social support resources, farm women reported involvement in various interests outside the home, with church related functions being the most frequently reported social activity. Nevertheless, a further 28% (n = 36) reported "no involvement" in church activities. Furthermore, half of the women reported their need to engage in these activities more frequently but could not do so

because of conflicting responsibilities.

Relationship between Environmental Demands and Stress

As evidenced earlier, the meso-systems, in which the farm women participate, included domestic (indirect involvement), farm-related (direct involvement) and off-farm demands and responsibilities (direct assistance). According to the conceptual framework, the tendency for multiple, concurrent roles, to produce stress, is dependent upon the complexity, congruence and compatibility of these systems. For example, the ability with which the farm woman could enact the transitions from home, to work, or to the farm, without a great deal of disruption, would reduce the likelihood of stress of a harmful nature. Conversely, if these transitions are perceived as unmanageable, then the occurrence of stress, which might have a damaging effect on the farm woman, may result.

Of overall significance in the Essex County study, was the farm women's high level of satisfaction with their current delineation of roles. These women reported being satisfied with their ancillary roles in the maintenance aspects of the farm operation. Although seasonal and daily variations in work demands, inclement weather and machinery breakdowns, were reported by farm women for their stress

provoking tendencies, the women generally reported being satisfied with these arrangements. Two plausible reasons for this phenomenon are that 67% (n = 87) of the farm women reported having a farm background; therefore, the effect of such anticipatory socialization could exert a mediating influence on their stress levels. For example, growing up on a farm would familiarize the farm women with obstacles to operating a farm. Secondly, the adoption of a fatalistic attitude toward normal stressors (weather, mechanical failures) might also help to minimize the effect of stress in respect to these areas (Boss, 1985). The results of the Essex County study were consistent with the Craig study (1984). She too, reported that farm related stressors such as weather did not contribute significantly to stress levels in farm women.

Evidence of "role congruency" was also supported, with respect to off-farm employment, for the farm woman. Women, in this study, were asked to judge, for themselves, as well as for their spouses, the importance of their off-farm contributions to the farm operation. Unexpectedly, the spouses were reported to consider the farm woman's contribution of greater importance than that did the farm woman, herself. This suggests support for the need of the farm woman's employment outside the home. If off-farm employment were

perceived to conflict with the farm family's value system, stress of an undesired nature, might occur (Boss, 1985; Berkowitz & Perkins, 1984; Berkowitz & Hedlund, 1979). Although farm men were reported to endorse the practice of off-farm employment, no significant changes were reported, with respect to the sharing of domestic workloads. Farm women seemed to have simply incorporated the additional demands of their off-farm employment into the existing work schedule of farm and family. Role congruency was also an important theme in the Berkowitz and Perkins study (1984) as well as the Hedlund & Berkowitz investigation (1979). Level of satisfaction with existing delineation of the farm women's roles, in this study, was further evidenced in her judgement of the farm's ability to survive without her contribution. Women who believed that the farm operation could not survive without them (n = 54: 69%), all had dependent children. Therefore the farm woman's perception of her role may have focused primarily on the mothering aspects and not in terms of being a partner in the operation. Moreover, the farm woman's perception and subsequent satisfaction with the delineation of her roles, suggests further endorsement of a lifestyle indicative of a partriarchal model.

A small percentage of the farm women in this study, expressed some dissatisfaction with the lack of sharing, in traditional role functions. For example, approximately 13% (n =17) reported disliking having sole responsibility for meal preparation. Researchers Walker & Walker (1987) also observed that some of their respondents had expressed some dissatisfaction with retaining full responsibility for the execution of these traditionally ascribed roles.

One might suspect that age, affects of gender-biased socialization and the number of small children in the home, technology (such as microwaves, and dish washers) as well as off-farm employment might influence the woman's level of satisfaction. For example, women who choose to work off-the-farm, who have the support of their spouses would be less apt to view their stress as impacting negatively on their lives. Of the farm women under 40 years of age, in this study, 41% had children under the age of 10. Workloads of women with very young children would, understandably be heavier. Indeed, farm women in this study, with young children, reported family responsibilities as a potential stressor. Dissension might also occur if the woman's off-farm employment, conflicts with the value systems in the home. For example, if the family's values espouse a woman's role as one of

mother and homemaker, yet, economic necessity forces the woman to obtain off-farm employment stress of an adverse nature might result. Bertowitz and Perkins' study (1984) on role congruency among farm women, emphasized the importance of spousal support as being a crucial element in mitigating the effects of stress in farm woman. The design of the Essex County study, however, did not lend itself to investigating this phenomenon.

Farm women were divided with respect to the levels of satisfaction they experienced with their jobs. Generally speaking, 17% (n = 22) of the respondents expressed some dissatisfaction with their vocational choices. Further, 31% (n = 40) of the women over the age of 40 years, reported being "neither satisfied nor dissatisfied" with their jobs. As reported earlier, 44% of the women reported employment in the service and clerical sectors of the community, where, generally speaking, marginal salaries characterize traditionally female jobs. Also, as reported earlier, financial necessity was the stated reason, most often, for women who sought and maintained their off-farm jobs. Hence, a conflict might develop between the farm woman's need for money to offset the cost of farming and her experience of inadequate personal remuneration. As well, the possibility exists that other

dissatisfactions with the job might have affected her level of satisfaction.

In summary, farm women in Essex county reported being relatively content with the delineation of their roles. Although balancing home, farm and off-farm employment schedules are considered a delicate and often challenging task, most farm women noted that they were managing well, within their environments. Factors such as the number of children, off-farm employment, age and structural characteristics of the farm would influence the farm women's ability to achieve a balance between systems. Nevertheless, dissatisfaction of women with environmental demands, possibly related to conflict within the meso-system, did appear to be emerging, for a small percentage of women participating in this research.

Relationship between Stress, Farm Woman's Demands and her Resources

The conceptual framework also suggests that stress may result, if the farm woman perceives a conflict between the demands placed on her by the environment and the demands she places on the environment. Farm women, in this study, are reporting the initial signs of stress. Psychological indicators such as increased frustration,

mental fatigue, irritability and anger, were reported with high frequencies. As well, physiological manifestations of stress included weight gain, muscle tension and headaches.

As noted earlier, most farm women appeared to be coping with the demands occurring at the meso-level of her environment. Farm women consistently reported lifestyle gratification as the most important demand they had of their environment and that it is their present perception that they have achieved some measure of satisfaction in this area. In contrast, farm women are reporting conflict between their demand for financial adequacy and the environment's ability to satisfy this expectation. Lack of profit and financial difficulties clearly were reported to be the most frequently reported stressors by the farm women in this study. When analyses were completed on stress-related symptoms with the farm operation's ability to provide an adequate financial living, the results of the comparisons were apparent. Farm women were clearly frustrated, irritated and angry with the farm's diminished capacity to meet their financial needs. These results were consistent with the findings in the Craig study (1984). It is suspected that demands of the macro-system, operating at global and international levels, are influencing this conflict. To

illustrate, the federal government's response to domestic and foreign policy in agriculture, although remote in terms of its physical contexts of the family, has impacted directly to demands that the farm family makes certain fiscal adjustments. Declining commodity prices, in conjunction with diminishing markets, poor yields, escalating interest rates, rising input costs and plummeting land prices, have all contributed to adverse economic times for the agricultural community in Canada (Bullock, 1985; Clarke, 1986; Wolfe, Masrour, Coursey & Kempster, 1986). Farm women in this study conclusively believed that these variables were having an adverse impact on their ability to succeed financially, in farming.

Farm women who reported discrepancies with respect to their demands for financial adequacy, also reported family responsibilities and off-farm employment as potential stressors more frequently than those respondents who reported being satisfied with their financial situations. With respect to family responsibilities, inability to take a family holiday and little leisure time, were reported to be stressful. With respect to off-farm employment, these families were less convinced of their ability to live financially independent of the land or of their ability to preserve the land for future generations. Also, farm

women with off-farm employment, reported higher levels of dissatisfaction with lack of profit and their ability to succeed financially, than those who reported being satisfied with their financial circumstances. As well, level of satisfaction and security with their lives appeared lower for this group. Speculation that the inability to feel secure or financially successful, might conceivably be seen as a reflection of their debt-load, thereby suggesting the possibility that their off-farm employment may be one of economic necessity and not personal preference. If so, the demands of off-farm employment might then be seen as competing with the farm family's time and hence, their ability to preserve the land.

Farm related responsibilities were also reported by the respondents to generate stress in farm women. Inclement weather and machinery breakdowns were cited as the most frequent sources of stress. Not surprisingly, however, financial expenditures related to the farm, machinery repairs and replacements were reported to promote stress in farm women.

In this study, approximately 24% (n = 31) of the farm women reported financial uncertainties. Similarly, it is estimated that approximately 23% of farmers, nationally, 13% provincially and 19%

locally are experiencing financial uncertainties (Carter, 1989), many others have been required to alter their lifestyles, to adapt to the diminished farm income. Also, according to the literature, those who appear most in jeopardy are the younger, more innovative, more educated individuals who are in the cash grain segments of the industry (Bultena, 1986; Walker & Walker (1987). Reasons for this phenomenon are related to decisions to expand, thus increasing their debt obligations. Older farmers tend to have more manageable debts load, often because of "old money" in the system as a result of generational land transfers. The prospects of retirement, as well as conservative spending habits, are other factors that have a tendency to dissuade farmers from considering additional capital outlays. This study did not yield results to refute or support this data. Findings did reveal, however, that women under the age of 40 years were engaged in more capital expansions activities than were women over the age of 40 years, perhaps suggesting an increased debt-load for this particular group. Also, requests for additional information, predominantly focused on retirement and estate planning, further suggest an older population and hence, less debt.

The processes related to the farm womens' ability to resolve

their conflict with their environment are influenced by the quality and accessibility of internal and external resources. Farm women in Essex County had resources to draw upon, to mitigate against the negative effects of stress. Resources are divided into personal, family and social support. With respect to personal resources and finances, women in Essex County did not report to be in financial jeopardy but were disturbed by the lack of return on their investments. One plausible explanation for their financial security would include the high incidence of off-farm employment in which almost 50% (n = 62) were engaged. Another explanation would focus on the established nature of the majority of the respondents. For example, over 65% of the respondents were over the age of 40 years, with an average of three generations in the farm operation. With respect to personal resources and education, McCubbin and Patterson (1983) consider education a factor that reflects one's cognitive and problem solving abilities. Farm women did report some success in the area of education, however, there was no way of knowing the extent or level of these achievements. Therefore, their ability to solve problems and perceive stress as a consequence of their academic achievements, was difficult to judge. However, those that reported university or college backgrounds

were more apt to have stable, off-farm employment which they largely enjoyed. Finally, with respect to health as a personal resource, farm women in this survey, appeared to be in good physical health. They also appeared to have a positive attitude toward themselves.

With respect to family resources, farm women in this study, reported experiencing harmonious familial relationships, emphasizing good communication skills, strong spousal support and shared decision making. Husband support, family co-operation and role congruence are family assets that operate to reduce the impact of stress (Berkowitz & Perkins, 1984; Hedlund & Berkowitz, 1979; Hertsgaard & Light, 1984). In those relationships, however, where there was little involvement in the decision making aspects of the operation, a lack of awareness, with respect to the financial situation of the operation was apparent. It is suspected that the results, regarding the key concepts of the study, might subsequently have varied with this additional information. For example, the number of farm women reporting unstable financial situations would have increased, as a result of an increase awareness in the part of these farm women.

With respect to social supports, farm women in this study were regularly involved in church related activities. This involvement

appeared to have significantly influenced their thoughts and perceptions. These women reported greater levels of satisfaction with their lives, their families and their relationships to their families, than did the women who did not report having strong affiliations with the church. Women with this affiliation also reported a greater sense of hope. In contrast, those without church affiliations reported to be less hopeful. Older women reported church affiliations with greater frequencies than did the younger women, perhaps reflecting the distancing of younger people, in general, from the necessity of religion in their lives. Also, stronger affiliations with religious organizations would suggest a tendency to adhere more closely to the doctrines of their church. Therefore, a sense of hope, tolerance and faith that their situations would improve, as a result of their religious beliefs, was supported in this study. Furthermore, strong religious beliefs might suggest a tendency to believe that resolutions to their problems might be generated from a source external to themselves, therefore, reinforcing the tendency that they might perceive a lack of control over their lives.

In summary, farm women in Essex County reported a sense of adequacy, with respect to the extent of their internal and external

resource repertoires. Duration of events, however, is another important factor in assessing stress impacts. Short-term pressures allow individuals time to recover and restore stability; conversely, long-term stress challenges the endurance levels of the individual and depletes resources. The factors that have precipitated the economic downturn in the industry show no immediate signs of recovery. The ability the farm woman and her family to continue to endure, under tenuous circumstances, remains in question.

Evidence to suggest an erosion of the levels of endurance, of some women, was found in the qualitative statements of the study. Feelings of frustration and anger, consistent with the self-report data on stress, were expressed. They attributed their stress to their financially eroding circumstances. One farm woman very eloquently summarized the reported feelings of the majority. She wrote, "I have very mixed feelings. I love the lifestyle of farming but am tired of the dedication it requires and am dissatisfied with the lack of profit....We deserve a higher standard of living without the emotional penalties."

Limitations of the Study

The generalizability of the findings, in this study, is limited for several reasons. Primarily, the limitations are a result of the sampling

procedures used in the design. The names of possible respondents were derived from circulation lists of women, familiar to or affiliated with, various groups and organizations in the area. Consequently, the chances of over-representing these groups in the sample, increased. It cannot be assumed that individuals with church and farm organization affiliations represent the experiences and opinions of farm women without these associations. Nevertheless, the study's design appeared very effective with respect to its ability to document the extent of the farm women's contributions to agriculture in general and to the home, farm and family, specifically. One is left with a better flavour for the responsibilities, perceptions and experiences of farm women in Essex County. The study's design also allows for easy comparisons to be made within national and local contexts.

Furthermore, the generalizability of the results, specifically related to the occurrence of stress-related symptoms in farm women, was limited by the incidence of missing data. A pattern began to develop, among some respondents. Selection of several relevant symptoms were consistently reported, while other symptoms were not selected by the respondents. This incidence of not selecting some responses is attributed to several related factors. As discussed earlier,

the concepts of denial and reliance upon self-help, were believed to have had an adverse effect on reporting. Conceivably, some respondents, because of their organizational affiliations, would have a difficult time admitting to drug or alcohol related problems. Secondly, the incidence of missing data might be attributed to the inability of the stress-symptom scale to measure levels of stress. Respondents were asked to indicate whether their levels of stress had increased, decreased, or stayed the same. A "not applicable" option was also available for their selection. Speculation that more appropriate category headings might have improved reporting, was considered. For example, the category headings of "not at all," "some," and "a lot," may have resulted in increased levels of reporting. Interestingly enough, the incidence of missing scores applied primarily to the stress-symptom section of the questionnaire. The frequency with which the occurrence of missing data occurred, depended upon the specific symptom. Hence, it was difficult to ascertain whether the process of intimidation, on the part of the farm woman, or the possibility of the inappropriateness of the scale, led to the occurrence of missing data. Unfortunately, this study in the coding stages, did not make the distinction between unanswered responses and responses that were

recorded as "not applicable." In retrospect, a distinction of this nature, may have been helpful in terms of analyzing the occurrence of missing data.

Implications and Recommendations of this Study

The need to continue research into the human dynamics of structural and economic change in the farming community remains vital. This research has endeavoured to identify the emotional impact of the current economic situation, as perceived by Essex County farm women, as well as to identify some of the factors that may have contributed to such developments. This is of clinical interest to social workers with rural clientele, as it will help familiarize practitioners with the changing issues in rural settings. Additionally, an awareness of and sensitivity to farm related difficulties, will assist rural practitioners to plan effective intervention strategies. Recognition of the occurrence of stress in farming is considered an initial but progressive step toward minimizing the impact of adverse stress in the lives of farm women and their families.

Farm women are beginning to show the initial signs of stress; a few exhibited extreme maladaptive signs of stress but, two-thirds of the respondents reported an increased levels of frustration. Anger and

irritability were also reported by 40% of those surveyed, but reports of abusive behaviour were rarely disclosed by the respondents. Clinically, these reactions appear healthy, when one looks at their struggle from its entire perspective. Economic loss threatens the viability of their farms and hence, their lifestyles. Their frustration and anger represent the realization, on the part of farm women, of the need to confront the issues that are perceived to be threatening their rural existence. The role, then, of the rural practitioner involves both clinical and educative implications. From a clinical perspective, it is incumbent upon the social worker to assist farm women in efforts to resolve identified areas of conflict. It is hoped that this research will put into a healthier perspective the apprehensions and frustrations that farm women may be harbouring as a result of the recent events in the industry. Structural and economic events in the industry appear to have had an adverse impact on the quality of life for many. They therefore have a right to feel frustrated, with these events.

Further, from an educative perspective, it is incumbent upon the social worker to promote and instill in farm women the importance of the contributions they make not only to their families, but to agriculture in general. Farm women appear reticent, however,

with respect to accepting recognition for their contributions. The introduction of groups of a "consciousness raising" nature, represents one alternative in programming to promote self-esteem in farm women. Similarly, continued efforts to further research the lives of farm women, is considered equally as instrumental in terms of raising the profile of farm women in society. The researchers of all related disciplines, have been somewhat remiss in their efforts to document the contributions that farm women have made, and continue to make in agriculture. As evidenced by the impressive return rate of the questionnaire, farm women, in Essex County have a voice on matters that relate to farm and family related matters. It is important then to continue to provide them with a legitimate vehicle that allows the expression of their experiences and opinions.

The role of the rural social worker is further complicated, however, by the reluctance of farm women, and the farming community, in general, to consult formal counselling agencies or persons, for assistance. Developing more effective strategies, to access the farming community remains yet another goal of the human service professions. Additional research into the contextual issues of farming will assist in the accomplishment of this goal.

Finally, with respect to economic and government policy makers, rural organizational specialists and health officials, the need to develop a better understanding of the financial and emotional well-being of the farm family unit is essential. Recognition that farm women and their families play an integral part in the overall functioning of the food production sector of the farm economy will help to achieve a better appreciation of the hidden costs in agriculture, that are borne by farm women. More, attention, needs to be directed this way, to promote farm women's contributions. Therefore, further research is necessary. Areas in need of further study are:

- 1) the effects of domestic and foreign policy in agriculture on the farm family from a social impact perspective. The influence such policies have on farm families is quite pervasive, yet most studies have researched the effect from an economic, not a human dimensions perspective. This is necessary because predictions are that many more farm families will face displacement by the turn of the century (Van Den Berg, 1989).
- 2) the differences in experiences and perceptions between farm women and farm men as they relate, not only to stress

in farming, but also as they relate to the farm man's perception of the farm women's role in the home, as well as on and off the farm. Results of this study indicated that farm women engage in a multitude of roles without corresponding changes occurring in their workload distributions. Research to determine the reasons for the lack of change would be of clinical significance to social work practitioners. For example, are the reasons related to the gender-specific, patriarchal values or are the reasons related to excessive work schedules on the part of the farm men.

- 3) the impact of structural and economic events on children. The literature appears remiss, with respect to research in this area. The literature review for this study, discovered only two indirect references to children in their discussions.
- 4) the reasons why farm families, despite times of economic adversity, continue to farm. An in-depth analysis of rural ideologies is considered to be of clinical significance to the rural practitioner.
- 5) the effect of off-farm employment on rural ideologies. An

enhanced perspective in this area would also help to improve intervention strategies.

- 6) the effect of religious affiliations on the thoughts, perceptions and performance of farm women. This is considered important as there appears to be a strong association between church affiliation and farm women's perceptions.
- 7) the need for alternate daycare that would coincide with seasonal and daily variations of the farm woman's work schedule. Farm women require child care arrangements that more accurately reflect their lifestyle.

Recommendations for Replication of This Study

It is recommended that prior to replication, more qualitative research needs to be conducted on isolating the concepts related to stress in farm women. Structured and non-structured interviews might help to clarify data as it relates to the effect of stress on farm women, within the contexts their rural environment. This information would help to validate the conceptual framework of this study, as well as help to ensure, the development of a reliable and valid instrument to measure the actual incidence of stress on farm

women.

Conclusions of the Study

The following general conclusions have been derived from the analysis of the data obtained in this study.

1. This research supported the assertion in the literature that farm women engage in a multitude of roles that tend to be consistent with a patriarchal model. Traditional roles of homemaking, as well as contributions that related to the operation of the farm, were reported by Essex County farm women. Additionally, one-half of the respondents reported off-farm employment of varying natures. However, an analysis of the division of labour, as a result of the farm women's combined responsibilities, revealed no appreciable changes in the re-allocation of their workload expectations. The farm women appeared to have simply incorporated these additional responsibilities of farm and off-farm employment into their existing, traditional workload schedules.
2. Farm women in Essex County reported a general degree of satisfaction with the delineation of their roles. As well, farm women appeared accepting of their ancillary positions on the

farm. Reluctance of farm women to express dissatisfaction, with respect to the inequitable distribution of the division of labour, as well as their ancillary positions on the farm, further reinforces an adherence to a patriarchal model. Similarly, reluctance to challenge these traditional expectations may be a reflection of diminished self-esteem.

3. Farm women appeared prepared to endure the stress associated with multiple concurrent roles. Their experience of stress, however, was reported to be directly related to their failed expectations of the farm operation's inability to provide an adequate lifestyle for themselves and their family. An analysis of the psychological manifestations concluded that an increase in levels of frustration was reported by 60% (n = 76) of the women who completed the survey. Also, equal increases in levels of anger and irritability were reported by 39% (n = 62) of the respondents. With respect to physiological manifestations, 42% (n = 33) of the sample reported increases in weight gain, as well, 29% (n = 38) experienced increases in muscle tension. Responses of a similar nature, were also reported by other researchers, who had conducted comparable types of

investigations.

4. In this study, approximately 24% (n = 31) of the farm women reported experiencing financial uncertainties. These figures compared, similarly, to those reported in the literature. Farm women in Essex County appear relatively stable with respect to their financial status'. It is believed that the high incidence of off-farm employment may be having a stabilizing effect on farm income, in Essex County. As well, 65% of the population surveyed were reported being over the age of 40 years. Decisions to expand operations are less likely at this age. Therefore, their established natures are also believed to be having a stabilizing effect on their debt load obligations. Finally, the high incidence of generational transfers of land is also suggested as a mitigating factor in minimizing debt load obligations.
5. Farm women in Essex County also reported to have available to them a variety of internal and external resources that they use to help mitigate against the harmful effects of stress. Of particular significance was the high incidence of church involvement. This involvement was reported to have significantly influenced their thoughts and perceptions. These

women reported a greater sense of hope, as well as a greater sense of satisfaction with their lives and their relationships with their families, than did women who did not report such affiliations. Unfortunately, discussions with respect to the influence of religious affiliations on farm women, were not found in the review of the literature.

Also of clinical significance was the reluctance of farm women to contact professional agencies with their emotional concerns. Only 4% of those surveyed reported receiving professional counselling.

Conclusion of the Research

This study examined the incidence of stress in Essex County farm women. Information was obtained to document, from the farm woman's perspective, the levels of stress and the factors attributed to their stress. Resources available to the farm woman were assessed for their ability to mitigate or promote stress. Overall, farm women are coping with the stress they are experiencing, however, they are enduring high levels of frustration and mental fatigue. Major contributors of the stress were primarily financial in nature. Further research into the impact of the financial decline on farm women and

their families is needed. Nevertheless, farm women are considered a resilient group and need to be commended for their contributions to agriculture.

Appendix A

Cover Letter



November, 1989

To Questionnaire Respondent:

Cindy Sealy is a graduate student at the School of Social Work, University of Windsor, who is undertaking to study the perspective of farm women in Essex County as part of the requirement for her M.S.W. degree. The research will attempt to document the contributions of farm women to the welfare of farm families and to agriculture, in general. More specifically she is interested in your values, perceptions and adjustments to the recent economic and social changes taking place on the farm. Cindy and her husband farm in the county so she too is experiencing the effects of these changes, first hand, and as a Social Worker wonders how these changes are affecting the farm family and the farm woman, particularly.

The three-part questionnaire will take approximately 45 minutes to complete. Part A deals with the demands, responsibilities, feelings and expectations related to the farm, the family and your financial situation. Part B focuses upon the resources you have to help manage your situation while the final Part asks for specific information about yourself. All information will be kept confidential and responses are intended to be anonymous, so please do not put your name on the questionnaire.

It is planned that this research will be completed by April 1990 and a copy of the Report will be made available to the Ministry of Agriculture, Essex. If you have any questions or comments, please contact Cindy at (519) 687-3310.

Thank you for participating in this research. By doing so you have made a substantial contribution to the success of this project and to the better understanding of the perspective of the farm woman in Essex County.

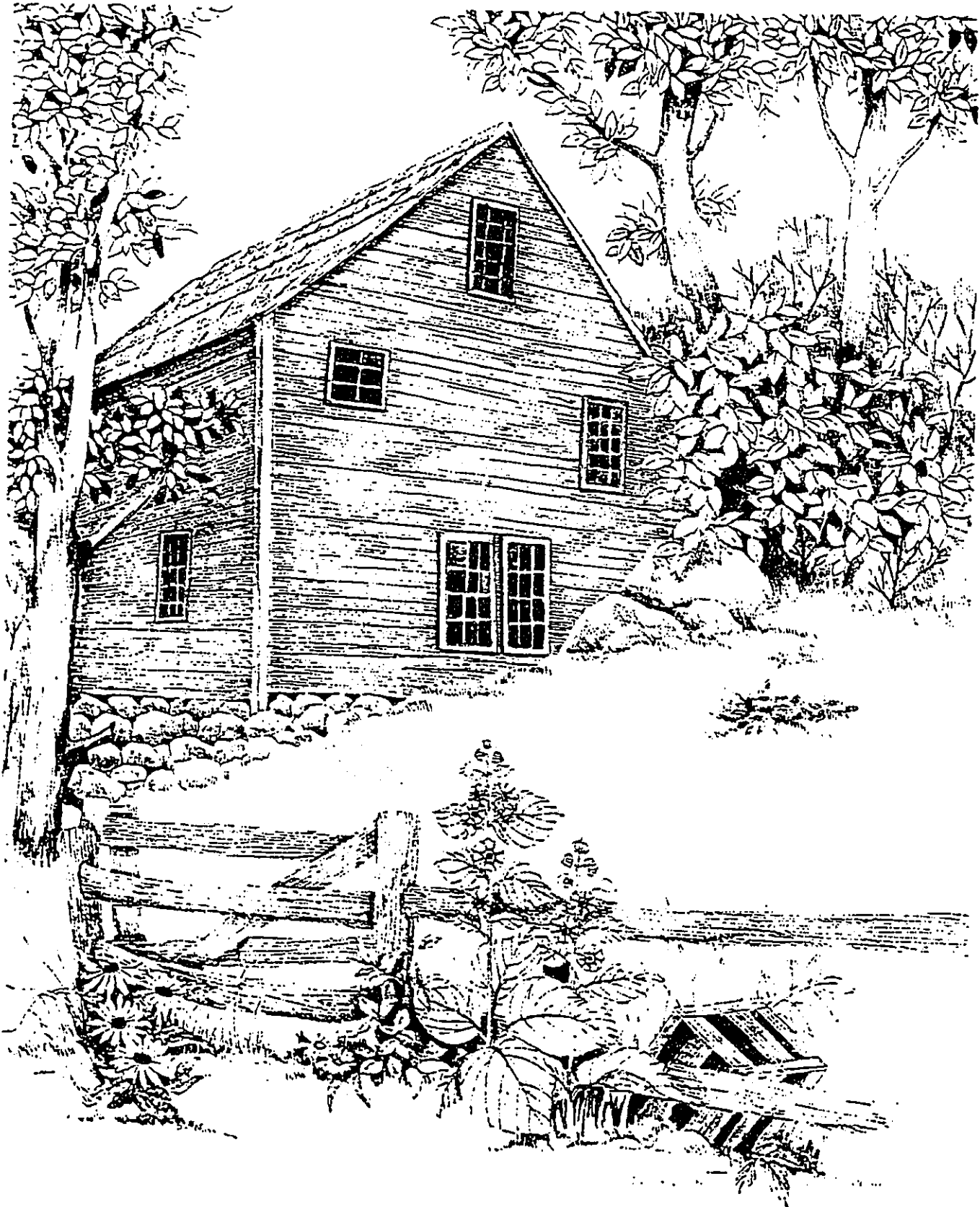
Yours truly,

B. J. Kroeker
Professor and Chairman
School of Social Work

Appendix B
Questionnaire

A RUIRAL REALITY¹⁶²

THE FARM WOMAN'S PERSPECTIVE



PART A - ENVIRONMENTAL/INDIVIDUAL DEMANDS

1. Is the farming community better off, about the same, or worse off than in 1979? (Please circle the number that best describes how you feel).

WORSE OFF		ABOUT THE SAME			BETTER	
1	2	3	4	5	6	7

2. Based on your evaluation of the farming community in question (1), evaluate the degree to which you feel the following are having an effect on the farming community at the present time. (Please circle the number).

		BAD EFFECT			NO EFFECT		GOOD EFFECT	
(1)	PRODUCT PRICES	1	2	3	4	5	6	7
(2)	INPUT PRICES	1	2	3	4	5	6	7
(3)	INTEREST RATES	1	2	3	4	5	6	7
(4)	INDIVIDUAL FARM MANAGEMENT	1	2	3	4	5	6	7
(5)	GOVERNMENT PRIORITIES ON AGRICULTURE	1	2	3	4	5	6	7
(7)	OTHERS (please specify)	1	2	3	4	5	6	7

FARM OPERATION

THIS SECTION ASKS SOME FACTUAL QUESTIONS ABOUT THE FARM OPERATION. THEY WILL BE USEFUL IN THE FINAL ANALYSIS OF THE QUESTIONNAIRE.

3. What is the size of your current farm operation? (include both owned and rented properties)

_____acres?

4. Please indicate the category which best describes the kind of farming operation you are involved in. (Check only one).

- | | | | |
|---------------------|-----|-------------------------------|-----|
| (1) DAIRY | () | (7) WHEAT | () |
| (2) BEEF | () | (8) SMALL GRAINS | () |
| (3) HOGS | () | (9) OTHER FIELD GRAINS | () |
| (4) SHEEP | () | (10) MIXED CROPS | () |
| (5) MIXED LIVESTOCK | () | (11) VEGETABLES AND/OR FRUITS | () |
| (6) POULTRY | () | (12) OTHER (Please specify) | () |

5. How long have you (with or without your husband) been operating a farm as your chosen form of life/work?

(1) _____ years

OFF-FARM WORK

THIS SECTION ASKS SOME IMPORTANT QUESTIONS PERTAINING TO "OFF-FARM" WORK ACTIVITIES OF BOTH YOU AND YOUR SPOUSE

6. Do you presently have an off-farm job?

(1) YES () _____

(2) NO () _____

b) If NO, would you like one?

(1) YES ()

(2) NO ()

- c) if YES, which of the categories best describes your occupation (check one only).

- | | |
|--------------------------------------|-----|
| (1) FARM LABOUR | () |
| (2) PROFESSION | () |
| (3) SERVICE | () |
| (4) CLERICAL | () |
| (5) MANUFACTURING
OR CONSTRUCTION | () |
| (6) FISHING, MINING
OR FORESTRY | () |
| (7) OTHER (Please
specify) | () |
| (8) NOT APPLICABLE | () |

TO ANSWER THIS QUESTION PART-TIME EMPLOYMENT IS TAKEN TO MEAN ANYTHING UNDER TWENTY-EIGHT (28) HOURS PER WEEK: FULL-TIME IS TAKEN TO MEAN ANYTHING OVER TWENTY-EIGHT (28) HOURS PER WEEK.

7. Please indicate how long you have had your current off-farm employment. (Check one category only, please).

	PART-TIME	FULL-TIME
(1) LESS THAN 6 MONTHS	()	()
(2) 6 MONTHS TO 1 YEAR	()	()
(3) 1 TO 2 YEARS	()	()
(4) 2 TO 5 YEARS	()	()
(5) MORE THAN 5 YEARS	()	()
(6) NOT APPLICABLE	()	()

8. What were your reasons for obtaining off-farm employment?

9. Approximately how much of your off-farm income goes toward a farming operation? (Please circle the number that best reflects your level of contribution).

NONE		SOME			ALL		NOT APPLICABLE
1	2	3	4	5	6	7	8

10. How important do you feel your financial contribution is to the farming operation? (Please circle the number).

NOT IMPORTANT			IMPORTANT		EXTREMELY IMPORTANT		NOT APPLICABLE
1	2	3	4	5	6	7	8

11. How does your spouse feel about the importance of your off-farm work? (Please circle the number).

NOT IMPORTANT			IMPORTANT		EXTREMELY IMPORTANT		NOT APPLICABLE
1	2	3	4	5	6	7	8

12. How do your children feel? (Please circle the number)

NOT IMPORTANT			IMPORTANT		EXTREMELY IMPORTANT		NOT APPLICABLE
1	2	3	4	5	6	7	8

13. If you are currently holding an off-farm job, please indicate how satisfied you feel about it. (Please circle the appropriate number).

STRONGLY DISSATISFIED		NEITHER SATISFIED NOR DISSATISFIED			STRONGLY DISSATISFIED		NOT APPLICABLE	
1	2	3	4	5	6	7		8

SPOUSE OFF-FARM WORK QUESTIONS

14. a) Has your spouse obtained off-farm employment since 1979?

(1) YES () _____
 (2) NO () _____

b) If YES, Please explain why _____

15. If your spouse holds an off-farm job, about how much of his income goes towards the farming operation? (Please circle the number that best describes his contribution).

NONE		HALF		ALL		NOT APPLICABLE	
1	2	3	4	5	6	7	8

16. If your spouse has an off-farm job, how would you say this has changed the amount of time you contribute to the operation of the farm enterprise? (Please circle the appropriate number).

SPEND MUCH LESS TIME		SAME		SPEND MUCH MORE TIME		NOT APPLICABLE	
1	2	3	4	5	6	7	8

ON-FARM WORK FARM WIFE CONTRIBUTION

THIS SECTION OF THE SURVEY DEALS WITH YOUR ON-FARM WORK CONTRIBUTIONS. THE LIST OF TASKS BELOW MAY INCLUDE SOME OF THE KINDS OF WORK WHICH ARE BEING DONE ON YOUR FARM.

17. INSTRUCTIONS

- A. If the task described is PRESENTLY being done on your farm, please indicate how often you personally perform this work. To do so, circle number 1, 2 or 3, whichever best describes the frequency with which you do the task.
- B. The next category indicates whether you feel the particular task is shared between you, your spouse and family or whether you feel the task is basically completed by yourself or someone else. To do so circle SH for shared or I for individual whichever is more accurate.

- C. The next category deals with your level of satisfaction with this division of labour arrangement. Circle Y for yes or N for no to indicate the most accurate response.

				Is this a shared or individual responsibility?		Are you satisfied with this arrangement?		Not Applicable	
	Regularly	Sometimes	Never	Shared	Indiv.	Yes	No		
A. FIELD WORK									
(1)	plowing, discing, cultivating or seeding	1	2	3	SH	I	Y	N	8
(2)	application of fertilizers, herbicides or insecticides	1	2	3	SH	I	Y	N	8
(3)	harvesting	1	2	3	SH	I	Y	N	8
B. CHORES									
(4)	feed and water farm livestock	1	2	3	SH	I	Y	N	8
(5)	perform milking chores	1	2	3	SH	I	Y	N	8
(6)	help with farm animals, doctoring, births, etc.	1	2	3	SH	I	Y	N	8
(7)	Other (please specify)								
	-----	1	2	3	SH	I	Y	N	8
C. ADMINISTRATION									
(8)	keep the farm accounts	1	2	3	SH	I	Y	N	8
(9)	keep livestock records	1	2	3	SH	I	Y	N	8

		Regularly	Some- times	Never	Is this a shared or individual responsi- bility?		Are you satisfied with this arrange- ment?		Not Applic- able
					Shared	Indiv.	Yes	No	
(10)	pay farm bills, do farm banking	1	2	3	SH	I	Y	N	8
(11)	prepare the farm income tax forms	1	2	3	SH	I	Y	N	8
(12)	deal with wholesale buyers in marketing farm products	1	2	3	SH	I	Y	N	8
(13)	OTHER (Please specify)	1	2	3	SH	I	Y	N	8

D. FARM MAINTENANCE

(14)	maintain or repair farm machinery	1	2	3	SH	I	Y	N	8
(15)	pick up repair parts or supplies	1	2	3	SH	I	Y	N	8

E. HOUSEWORK

(16)	care for children, including trans- porting them	1	2	3	SH	I	Y	N	8
(17)	care for aged or chronically ill household member	1	2	3	SH	I	Y	N	8
(18)	do shopping for family	1	2	3	SH	I	Y	N	8
(19)	do dish washing, laundry cleaning, cooking for family	1	2	3	SH	I	Y	N	8
(20)	entertaining business visitors	1	2	3	SH	I	Y	N	8

18. Are you personally engaged in such enterprises as craft production to sell, egg production, farm vacations, market gardening, etc.?
- (1) YES () (2) NO ()
- If YES, please specify _____
- When and Why? _____
19. a) For the work you do on your farm, do you receive a wage? (Please check).
- (1) YES, I do () (2) NO, I don't () (8) Not applicable
- b) Do you want to?
- (1) YES, I do () (2) NO, I don't () (8) Not applicable

FINANCIAL

THIS SECTION ASKS FOR SOME DETAILED INFORMATION ABOUT THE FARM FINANCES. REMEMBER, THE INFORMATION IS CONFIDENTIAL.

20. To what extent are you involved in making decisions regarding financing of the farming operation? (Please circle the number).

NOT AT ALL			SHARED			DO IT ALL	
1	2	3	4	5	6	7	8

21. If the total value of your farm assets (e.g., livestock, buildings, equipment, land, etc.) has changed since 1979 please indicate how by circling the appropriate number below.

DECREASED GREATLY			SAME		INCREASED GREATLY			NOT APPLICABLE
1	2	3	4	5	6	7	8	

22. If the total value of your assets has changed please explain why briefly.

(1) _____

(2) Not applicable ()

23. If now or in the future you are not able to obtain operating financing for your farm, which of the following options might you be likely to take? (Please circle the number that best describes your option).

	NEVER		PERHAPS			CERTAIN		NOT APPLICABLE
(1) Remortgage	1	2	3	4	5	6	7	8
(2) Sell livestock	1	2	3	4	5	6	7	8
(3) Sell machinery	1	2	3	4	5	6	7	8

	NEVER		PERHAPS			CERTAIN		NOT APPLICABLE
(4) Sell land	1	2	3	4	5	6	7	8
(5) Lease or rent land	1	2	3	4	5	6	7	8
(6) Take off-farm job (you or spouse)	1	2	3	4	5	6	7	8
(7) Other (please specify) -----	1	2	3	4	5	6	7	8

24. If the current economic situation does not improve, do you think you are likely to lose all or part of your farm in the next year? (Please circle the number closest to your situation).

very unlikely

very likely

1 2 3 4 5 6 7

25. Would you please indicate whether or not you have undertaken any of the following in the last year? (Please check).

	Yes, (could afford to)	Yes (had to, but couldn't afford to)	No (did not need to)	No (Needed to, but couldn't afford to)
(1) purchase of new farm machinery	()	()	()	()
(2) major repairs to farm machinery	()	()	()	()
(3) construction of new farm buildings	()	()	()	()
(4) major renovations or additions to farm buildings	()	()	()	()
(5) repairs to farm buildings	()	()	()	()
(6) construction of new farmhouse	()	()	()	()
(7) major renovations or additions to farmhouse	()	()	()	()
(8) repairs to farmhouse	()	()	()	()
(9) purchase furnishings	()	()	()	()
(10) purchase appliances (household)	()	()	()	()

- | | Yes,
(could
afford to) | Yes (had
to, but
couldn't
afford to) | No (did
not need
to) | No (Needed
to, but
couldn't
afford to) |
|-------------------------------|------------------------------|---|----------------------------|---|
| (11) purchased car | () | () | () | () |
| (12) purchased clothing | () | () | () | () |
| (13) Other (specify)
----- | () | () | () | () |
26. Would you please explain what you do with your children under 12 when you are occupied with farm work?
- (1) -----
- (2) Not applicable ()
27. If any of the following conditions apply to you please indicate the degree of change that has occurred since 1979 by circling the appropriate number.

	DECREASED SAME INCREASED								NOT APPLI- CABLE
(1) abusing others physically	1	2	3	4	5	6	7	8	
(2) alcohol usage	1	2	3	4	5	6	7	8	
(3) anger	1	2	3	4	5	6	7	8	
(4) being physically abused by others	1	2	3	4	5	6	7	8	
(5) changes in sexual activity	1	2	3	4	5	6	7	8	
(6) communication with spouse	1	2	3	4	5	6	7	8	
(7) crying	1	2	3	4	5	6	7	8	
(8) depression	1	2	3	4	5	6	7	8	
(9) disregard for personal appearance	1	2	3	4	5	6	7	8	
(10) frustration	1	2	3	4	5	6	7	8	
(11) guilt	1	2	3	4	5	6	7	8	
(12) headaches	1	2	3	4	5	6	7	8	
(13) heart palpitations	1	2	3	4	5	6	7	8	
(14) hostility	1	2	3	4	5	6	7	8	

support	1	2	3	4	5	6	7	8
	NOT AT ALL			SOME		A LOT		NOT APPLI-CABLE
(7) lack of family support	1	2	3	4	5	6	7	8
(8) lack of leisure time	1	2	3	4	5	6	7	8
(9) lack of money for holiday	1	2	3	4	5	6	7	8
(10) lack of profit	1	2	3	4	5	6	7	8
(11) off-farm work	1	2	3	4	5	6	7	8
(12) limiting children's activities because of financial restraint	1	2	3	4	5	6	7	8
(13) machinery breakdowns	1	2	3	4	5	6	7	8
(14) personal relationships	1	2	3	4	5	6	7	8
(15) sick animals	1	2	3	4	5	6	7	8
(16) spending money on the farm operation	1	2	3	4	5	6	7	8
(17) spending money on household needs	1	2	3	4	5	6	7	8
(18) spending money on yourself	1	2	3	4	5	6	7	8
(19) travelling to work	1	2	3	4	5	6	7	8
(20) lack of support from spouse	1	2	3	4	5	6	7	8
(21) others (specify)								
-----	1	2	3	4	5	6	7	8

29. When stress occurs, I can cope with it. (Please check only one response).

Most of the time ()

Sometimes ()

Rarely ()

30. How much stress do you think you are currently experiencing? Please circle the appropriate response.

Positive

Coping

Damaging

1

2

3

4

5

6

7

31. The following list offers some common expectations individuals have of the farm. Beside each expectations please indicate the degree of satisfaction with which you feel the farm has met these expectations by circling the appropriate choice. Please feel free to add to this list.

	STRONGLY DISSATISFIED		NEITHER SATISFIED OR DISSATISFIED		STRONGLY SATISFIED		
(1) Good place to raise family	1	2	3	4	5	6	7
(2) To provide an adequate financial lifestyle	1	2	3	4	5	6	7
(3) Live independently on land	1	2	3	4	5	6	7
(4) Preserve land for future generations	1	2	3	4	5	6	7
(5) Others (please specify)	1	2	3	4	5	6	7
-----	1	2	3	4	5	6	7
-----	1	2	3	4	5	6	7

PART B - INDIVIDUAL/FAMILY RESOURCES

32. Describe your family relationship according to the following statements. (Please circle the number).

	Almost never true of our family		Sometimes true of our family		Almost always true of our family		
(1) We live in a caring community	1	2	3	4	5	6	7
(2) Our family talks things out when differences arise	1	2	3	4	5	6	7
(3) There are activities we all enjoy doing together	1	2	3	4	5	6	7
(4) In our home we feel loved and cared about	1	2	3	4	5	6	7
(5) We have many contact and connections with friends and acquaintances	1	2	3	4	5	6	7

	Almost never true of our family			Sometimes true of our family			Almost always true of our family
(6) Our family is open to change and is flexible regarding rules and roles	1	2	3	4	5	6	7
(7) Church involvement is important in our family	1	2	3	4	5	6	7
(8) We show appreciation for what we do for one another	1	2	3	4	5	6	7
(9) In our family differing opinions are welcomed and listened to	1	2	3	4	5	6	7
(10) We respect each other's feelings	1	2	3	4	5	6	7
(11) All members of family are permitted to be unique individuals	1	2	3	4	5	6	7
33. Do you wish to become more informed about one or more of the following? (Check as many as you wish).							
(1) property rights	----		(12) capital gains	----			
(2) insurance	----		(13) investments	----			
(3) wills	----		(14) leadership training	----			
(4) estate planning	----		(15) politics	----			
(5) stress management	----		(16) first aid	----			
(6) budgeting, finance and credit	----		(17) marketing and pricing	----			
(7) parenting	----		(18) communication	----			
(8) marriage relationships	----		(19) widowhood	----			
(9) retirement plans	----		(20) separation & divorce	----			
(10) income tax	----		(21) Other (specify)				
			-----	----			
			-----	----			

34. Below are some words and phrases that people use to describe their lives. As you see, each scale has a word or phrase at one end, and its opposite at the other end. Please check the number on the scale that comes closest to describing how you feel about your own life.

Here is an example:

Your life is:

Dull	1	2	3	4	5	6	7	Exciting
------	---	---	---	---	---	---	---	----------

If you think your life is, overall, *dull* you would check the number "1" on the scale. If you think it is *exciting* you would circle the number "7". If you feel that it is somewhere in between very dull and very exciting, you would circle the number closest to your feeling.

Please be sure to circle one number for each scale.

Unsuccessful	1	2	3	4	5	6	7	Successful
Financial Insecure	1	2	3	4	5	6	7	Financially Secure
Tense	1	2	3	4	5	6	7	Relaxed
Unhappy family	1	2	3	4	5	6	7	Happy family
Anxious	1	2	3	4	5	6	7	Secure
Disappointing	1	2	3	4	5	6	7	Satisfying
Useless	1	2	3	4	5	6	7	Worthwhile
Lonely	1	2	3	4	5	6	7	Friendly
Discouraging	1	2	3	4	5	6	7	Hopeful
In poor health	1	2	3	4	5	6	7	In good health

35. Do you wish to stay on the farm, or would you rather leave?

(1) STAY () (2) LEAVE ()

36. Would you like your family to carry on farming?

(1) YES () (2) NO () (3) DON'T KNOW ()

37. This part of the survey is to find out what farm women think about certain events which we face in our society. Each item consists of a pair of statements. Please select the one statement of each pair (and only one) which you more strongly believe to be more nearly true, rather than the one you think you should check or the one you would like to be true. This is a measure of personal belief; obviously, there are no right or wrong answers. Again, be sure to make a choice between each pair of statements.

- *** I think we have adequate means for preventing run-away inflation ()
 There is very little we can do to keep prices from going higher ()
- *** Canada is run by the few people in power, and there is not much the little guy can do about it ()
 The average citizen can have influence on government decisions ()
- *** More and more, I feel helpless in the face of what is happening in our country today ()
 I sometimes feel personally to blame for the sad state of affairs in our government ()

38. Please indicate the extent of your involvement in the following social activities.

	NOT INVOLVED AT ALL			SOMETIMES		REGULARLY	
	1	2	3	4	5	6	7
Women's Institute	1	2	3	4	5	6	7
Community Groups	1	2	3	4	5	6	7
Sports Groups	1	2	3	4	5	6	7
Charitable Groups	1	2	3	4	5	6	7
Lodges	1	2	3	4	5	6	7
Church Groups	1	2	3	4	5	6	7
Farm Organizations	1	2	3	4	5	6	7
Political Organization	1	2	3	4	5	6	7
Volunteer	1	2	3	4	5	6	7
Others	1	2	3	4	5	6	7

39. a) Are you as involved in off-farm activities as you would like to be? (Please check).

(1) YES () (2) NO ()

- b) If not, check the factors that prevent your involvement.

(1) LACK OF TIME ()

(2) LACK OF CONFIDENCE ()

(3) UNPREDICTABLE FARM RESPONSIBILITIES ()

(4) LACK OF APPROPRIATE ORGANIZATIONS ()

(5) LACK OF KNOWLEDGE OF LOCAL ACTIVITIES ()

(6) OTHER (Specify) _____

_____ ()

40. Do you feel isolated in your area? (Please circle the appropriate number.

Not At All

Totally

1 2 3 4 5 6 7

41. Do you have to borrow money to run your household? (Please check).

(1) YES () _____

(2) NO () _____

If yes, do you find this situation stressful?

(1) YES ()

(2) NO ()

42. In your household, how important do you think your home production (e.g., canning, sewing, gardening) is in meeting family needs? (Please circle the number).

		VERY UNIMPORTANT	1	2	3	4	5	6	7	VERY IMPORTANT	NOT APPLI- CABLE
(1)	Baking bread		1	2	3	4	5	6	7		8
(2)	Canning, preserving, freezing		1	2	3	4	5	6	7		8
(3)	Preparing meals		1	2	3	4	5	6	7		8
(4)	Making clothing		1	2	3	4	5	6	7		8
(5)	Keeping a garden		1	2	3	4	5	6	7		8
(6)	Keeping poultry or animals for family use.		1	2	3	4	5	6	7		8
(7)	Doing home decorating and repair		1	2	3	4	5	6	7		8

43. Do you think the family farm could operate effectively without your contribution?

(1) YES ()

(2) NO ()

(3) NOT APPLICABLE ()

44. If you have received treatment for a stress-related illness since 1979, what type of treatment was given? Please check.

(1) Drug Related () (2) Counseling () (3) Not applicable ()

45. If you go to any of the following people for emotional support please indicate your degree of satisfaction by circling the number that best reflects your feelings.

		VERY DISSATISFIED			SATISFIED			VERY SATISFIED	NOT APPLIC- ABLE
(1)	FAMILY	1	2	3	4	5	6	7	8
(2)	FAMILY DOCTOR	1	2	3	4	5	6	7	8
(3)	FRIEND	1	2	3	4	5	6	7	8
(4)	MINISTER	1	2	3	4	5	6	7	8
(5)	PROFESSIONAL HELP	1	2	3	4	5	6	7	8
(6)	SPOUSE	1	2	3	4	5	6	7	8
(7)	NO ONE	1	2	3	4	5	6	7	8

46. Please indicate the extent these behaviors are occurring in your children. Please circle the appropriate response.

		DECREASED			SAME			INCREASED	NOT APPLIC- ABLE
(1)	DAYDREAMING	1	2	3	4	5	6	7	8
(2)	AGGRESSIVE BEHAVIOR	1	2	3	4	5	6	7	8
(3)	FIGHTING	1	2	3	4	5	6	7	8
(4)	MISBEHAVING IN SCHOOL	1	2	3	4	5	6	7	8
(5)	ANGER	1	2	3	4	5	6	7	8
(6)	NOT ABLE TO SLEEP AT NIGHT	1	2	3	4	5	6	7	8
(7)	WITHDRAWN	1	2	3	4	5	6	7	8
(8)	LACK OF ATTENTION SPAN	1	2	3	4	5	6	7	8
(9)	CHANGE IN EATING HABITS	1	2	3	4	5	6	7	8

	DECREASED		SAME		INCREASED		NOT APPLIC- ABLE	
(10) LACK OF INTEREST IN SCHOOL WORK	1	2	3	4	5	6	7	8
(11) OTHER (specify)								
-----	1	2	3	4	5	6	7	8
47. In your words can you explain why you think these behavior patterns are occurring?								

PART C - DEMOGRAPHIC INFORMATION

THIS SECTION ASKS SOME FACTUAL QUESTIONS THAT WILL HELP US IN ANALYZING THE RESULTS OF THE QUESTIONNAIRE.

48. Which of the categories below is the best description of your marital status?
(For the purpose of this survey, a woman who has lived in a common-law relationship is considered to have been married).

(1) single (never married) ()

(2) married (living with spouse) ()

(3) single (separated, widowed or divorced) ()

49. What is your age?

_____ years

50. When is your spouse's age?

Years Not Applicable

51. How many children do you have living on the farm and which of the following age categories do they fit into? If for example, you have two male children below the age of one, you would place a "2" in the "under one year" category and in the "male" column.

	Male	Female		Male	Female
(1) under one year	()	()	(4) 11 to 15 years	()	()
(2) 1 to 5 years	()	()	(5) 16 to 20 years	()	()
(3) 6 to 10 years	()	()	(6) over 20 years	()	()

52. Please indicate the formal education obtained by yourself and by your spouse. (Check for yourself and for your spouse).

	Yourself	Spouse
(1) Grade 10 or less	()	()
(2) Grade 11 to 13	()	()
(3) Some or complete technical or trade school	()	()
(4) Some or complete university	()	()
(5) Non-credit courses	()	()
(6) Correspondence courses	()	()
(7) Other (specify)		
-----	()	()
If you checked 3, 4, 5 or 6 was your own education agriculturally related?		
(1) YES ()	(2) NO ()	

53. Please indicate how many family members are

- a) dependent on the farm for support ()
- b) working full-time on the farm ()
- c) working part-time on the farm ()
- d) children who live on and work off the farm ()
- e) living on the farm but working off the farm and contributing to expenses ()

54. How many people are there in total residing in your farm household?

(1) _____ people

55. Do either you or your spouse come from farming families?

a) YOU

(1) YES ()

(2) NO ()

c) SPOUSE

(3) YES ()

(4) NO ()

(5) NOT APPLICABLE

b) If yes, how many generations
has your family been farming?

(1) _____generations

d) If yes, how many generations
has your husband's family been
farming?

(1) _____generations

Please use the space below to express any additional comments you might have:

Thank you for participating in this study. Your input has been very valuable. I have appreciated your contribution toward the completion of this research study. Please mail this questionnaire in the self-addressed return envelope.

This questionnaire is adapted from L. Craig's Research Study on the Perceived Economic, Social-Demographic and Farm Related Factors Associated with Stress in Farm Women of Grey and Bruce Counties; 1984.

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VITA

Name:	Cindy L. Sealy-Duquette
Place of Birth:	Leamington, Ontario
Year of Birth:	1958
Post Secondary Education and Degrees	Lakehead University Thunder Bay, Ontario 1976 - 1978 University of Windsor Windsor, Ontario 1978 - 1980 B.S.W. University of Windsor Windsor, Ontario 1987 - 1990 M.S.W.
Related Work Experience	Social Worker Essex County Social and Family Services Essex County 1980 - Present