

IMAGES OF TECHNOLOGY
A HISTORICAL CONTENT ANALYSIS
OF AGRICULTURAL ADVERTISEMENTS IN CANADA
FROM 1943 TO 1983

by

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Images of Technology: A Historical Content Analysis

of Agricultural Advertisements in Canada From 1943 to 1983

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ABSTRACT

The discussion of the political, economic and social changes brought about by modern agricultural technology has its parallel, in terms of intensity, in the ways in which agricultural advertising presents technological change to farmers. In most agricultural advertising one can detect a particular representation of the relationship between man as producer, his needs, and the manner in which these needs are to be satisfied.

This thesis examines 300 agricultural advertisements selected through a quota sampling technique from the spring issues (1943-1983) of a Canadian farm magazine, Country Guide. The thesis traces changes in the patterns by which the relationship between the farmer and agricultural products were presented in the advertisements. It explores the relevance of the theory of needs and commodities developed by William Leiss to agricultural advertising. Leiss has argued that in the present market setting in industrialized societies, the satisfaction of wants has become very problematic. The market itself works on the symbolic aspects of both wants and commodities, thus intensifying the confusion of persons about their needs and the ways in which to satisfy them.

Adopting a form of content analysis called "systematic interpretation" developed by Kline and Leiss this thesis found that the presentation of the product continues to dominate agricultural advertisements within the entire period examined.

The role of the text in the production of meaning also remains very significant throughout. There is a continuing emphasis on product utility and performance characteristics but equally important is the increasing tendency for agricultural advertisements to associate the product, through "less rational" appeals, with a consistent range of social relations and values emblematic of contemporary farm life determined by new technologies.

According to the agricultural advertisements studied, modern technologies are to be understood as necessary in attaining material affluence and freedom from the hardships of labor. At the same time, these modern farm technologies are construed as autonomous, appearing to have a life of their own, as capable of bringing people together and of becoming the objects of respect, envy, pleasure and admiration.

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TABLE OF CONTENTS

Approval	ii
Abstract	iii
Acknowledgement	v
List of Figures	vii
I. Introduction	1
II. A Theory of Needs and Satisfaction	10
Problems of Satisfaction Today	15
III. Analysis of Agricultural Ads from 1943 to 1983	26
IV. Discussion of Findings	41
Characteristics and information content	42
Symbolic dimensions and rhetorical devices	48
V. Summary and Conclusion	55
Conclusion	63
Appendix A	67
Bibliography	113

LIST OF FIGURES

FIGURE		PAGE
1	Size of ad: farm machinery	68
2	Size of ad: farm chemicals	69
3	Color of ad: farm machinery	70
4	Color of ad: farm chemicals	71
5	Image portions: farm machinery	72
6	Image portions: farm chemicals	73
7	Image portions devoted to the representation of the background: farm chemicals	74
8	Image mode: farm machinery	75
9	Image mode: farm chemicals	76
10	Product image: farm machinery	77
11	Product image: farm chemicals	78
12	Word count: farm machinery	79
13	Word count: farm chemicals	80
14	Text themes and emphasis: farm machinery	81
15	Text themes and emphasis: farm machinery	82
16	Text themes and emphasis: farm chemicals	83
17	Text themes and emphasis: farm chemicals	84
18	Accounts of consequence of use in text: farm machinery	85
19	Accounts of consequence in use in text: farm chemicals	86
20	Other textual themes: farm machinery	87
21	Other textual themes: farm chemicals	88

22	Other textual themes: farm chemicals	89
23	Other textual themes: farm chemicals	90
24	Are persons shown users?: farm machinery	91
25	Are persons shown users?: farm chemicals	92
26	Representational mode: farm machinery	93
27	Representational mode: farm chemicals	94
28	Grouping: farm machinery	95
29	Grouping: farm chemicals	96
30	Emotional reaction: farm machinery	97
31	Emotional reaction: farm chemicals	98
32	Type of setting: farm machinery	99
33	Type of setting: farm chemicals	100
34	Interpersonal relationship in text: farm machinery ..	101
35	Interpersonal relationship in text: farm chemicals ..	102
36	Activities shown: farm machinery	103
37	Activities mentioned in the text: farm chemicals	104
38	Interpersonal relation depicted in image: farm machinery	105
39	Interpersonal relation depicted in the image: farm chemicals	106
40	Dominant rhetorical form; content: farm machinery ...	107
41	Dominant rhetorical form; content: farm chemicals ...	108
42	Dominant rhetorical form; style: farm machinery	109
43	Dominant rhetorical form - style: farm chemicals	110
44	Dominant value: farm machinery	111
45	Dominant value: farm chemicals	112

I. Introduction

"Man needs goods for communicating with others and for making sense of what is going on around him."¹ This view of the role of objects or goods is reflected in studies of human societies where "it is standard ethnographic practice to assume that all material possessions carry social meanings and to concentrate a main part of cultural analysis upon their use as communicators."² In earlier societies these meanings were defined and established through kinship ties, hierarchical relations, forms of worship, and other rituals which determine for people who they are and how they are to think and behave in relation to different situations and other members of the social group. Any change is explained or judged according to the precepts which guide these traditional practices. In modern society "...the economy is the site of symbolic production."³ This means that the economic system itself, i.e., the structure and processes of the production and exchange of goods determines the meanings attached to objects. The peculiarity of the present situation according to Sahlins "...is the institutionalization of the process in and as the production of goods, by comparison with a "primitive" world where the locus of symbolic differentiation remains social relations, principally kinship relations, and other spheres of activity ordered by the operative distinction of kinship."⁴

In his essay, The Icons of the Marketplace, William Leiss identifies the sphere of consumption as another vital site of production of meanings attached to goods. He starts by proposing that

modern marketing, like earlier forms of economic action, has its roots in processes that bind objective entities and subjective states. Both sides have complex sets of characteristics. Sophisticated industrial technologies enable producers to manipulate the physical characteristics of objects with great facility. Yet even this facility cannot match that of the human imagination, with its unlimited capacity to invent symbols and images, to attach these to affective impulses, and to subject the combination to infinite permutations.⁵

According to him, "marketing as a whole is the active centre of the symbolic processes, but advertising is its most visible manifestation."⁶

The mere number of advertisements people in highly industrialized countries are exposed to everyday attests to the simple point that advertising has become a significant part of our environment to which we must relate in some way. It is the role of advertising in modern society according to Leiss, "to verbalize the possible meanings of things and to facilitate the exchanges of meanings occurring in social interactions."⁷ Advertising should be understood today as a major cultural institution he says, because it concerns itself with goods which are principal channels of communication.

For this reason advertising occupies a position between the marketing system and the consumption process; it is an important "field in which we can examine the socialization patterns that

orient individual aspirations and the interpretations of satisfaction towards the consumption of goods."⁸

The specific concern of this thesis is the representation in advertisements of the changes in the consumption of a particular type of goods, namely, agricultural products like farm machinery or equipment, herbicides, pesticides and veterinary products which are used in farm production. These are categorized as technological products which are not directly consumed but are used in the production of materials needed for the production of final consumer goods such as food, clothing and so on. By studying agricultural advertisements, I wish to find out what is being said about the farmers and their world and how this is being said, i.e., how the farmers are being addressed by the advertisers. This study will allow others to estimate the extent to which agriculture and the lives of those engaged in it have changed along with the changes in farm technologies.

Agriculture, defined in a broader sense as the cultivation of land to produce food, materials for clothing, shelter and other products for direct consumption, is an indispensable form of human activity which has undergone profound changes concomitant with technological developments. Anderson and Richards describe the major shifts corollary to breakthroughs in agricultural technology in the North American setting since World War II.

One was the complete mechanization of production and processing with an attendant virtual disappearance of

rural labor. A second shift was the almost total dependence upon manufactured chemicals, to such an extent that their cost and environmental consequence, along with energy, is now the key question in the economies of production. There has also been an organizational revolution, in which government policies were adjusted to support or protect farmers and farmer guided cooperatives, pools, marketing boards, or councils were developed to sustain or regulate domestic and overseas market.⁹

Today, less than four percent of the North American population earns its livelihood through farming though before World War II it was 50 percent.¹⁰ Unable to afford the heavy capital investment required for new technologies, and unable to compete without them, small farmers were forced to abandon farming altogether. As farm workers and small farmers were forced off the land, the rural communities which have depended on them for sustenance were also withering away. The net result is a food production system dominated by corporate farmers. Putting agriculture in the service of the present market setting imposed grave risks not only on our social but on our natural environment as well. The use of large tracts of land for growing specific crops has altered the natural flora and fauna of the ecosystem. Intense cultivation of the soil also has changed its inherent structure making it more dependent on artificial means to restore its ability to support life. One of the most pressing concerns today thus is the manufacture of herbicides and pesticides which produce toxic wastes that are often deposited irresponsibly in the atmosphere, bodies of water, and "unproductive areas" thus harming other life forms. In the farm, these manufactured chemicals often become grave health hazards

to the users and the final consumers of the farm produce.

The demands of agriculture for heavy investments in mechanized equipment and expensive fertilizers, pesticides and herbicides have made today's farmers themselves a lucrative market. In 1978, fifty U.S. advertising agencies billed more than \$224 million in agricultural accounts. For farm magazines alone, about \$37 million was spent by the top ten U.S. agricultural advertisers in 1980.¹¹ In Canada, the advertising revenue of farm magazines alone amounted to \$18 million in 1982.¹² Although this constituted only 0.7 percent of the total advertising revenues of all media that year, considering that agricultural advertisers also used other means to advertise their products, the total amount spent on advertising can be assumed to be much higher.

The market for agricultural products is much smaller than that for general consumer goods but the unit prices of farm equipment and chemicals are high; thus the sales values still amount to significant levels. In a financial management survey report issued by Country Guide in 1984 it was stated that approximately 16,000 or 18% of qualified (with a gross production value of \$20,000 or more) subscribers in Canada, planned to purchase a tractor in the same year. More than 16,000 farmers were also planning to buy other farm equipment, e.g., combine, swather, forage harvester, grain dryer, mower conditioner, etc.¹³ At the time of the survey, 60.8% or 86,886 of the subscribers had gross production values of \$20,000 or

more. As a sign of the range of interest in agricultural information, note that Country Guide had 225,623 subscribers in 1984.¹⁴

The debates about the political, economic and social implications of the "modernization of agriculture" has its parallel in the marketing discourse of advertising. This study examines this form of discourse in terms of the representations of the dramatic changes that affected an established mode of production and way of doing things. Further, this study traces patterns in which agricultural advertising as a form of articulation changed within the last 40 years of the twentieth century - a period during which the industrialization of agriculture has greatly intensified. It is my contention that agricultural advertising imagery defines and reflects the dominant themes which characterize the discourse on technology, in a particular way.

The first part of this thesis establishes the theoretical framework on which the study is based, outlines the major concepts formulated by Leiss in his essay on modern society, The Limits to Satisfaction (1976), and presents a brief account of a study on advertising imagery he conducted with Steven Kline in 1978 which serves to illustrate the ideas developed in the essay. Part two is a discussion of the analytical technique used in the study of agricultural advertisements from 1943 to 1983. The methodology used by Kline and Leiss in their study of consumer goods advertising is adopted in order to provide a

standard measure with which the differences between ads for farm products and consumer goods ads can be determined. The third part is a detailed discussion of the findings from the empirical study. The last part is a summary of the findings and the conclusions.

Notes

1. M. Douglas and B. Isherwood, The World of Goods, (New York: Penguin Books Ltd., 1978), p. 95.
2. Ibid, p. 59.
3. M. Sahlins, Culture and Practical Reason (Chicago: The University of Chicago Press, 1976), p. 211.
4. Ibid, p. 211
5. W. Leiss, "The Icons of the Marketplace," Theory Culture and Society, Volume 1, Number 3, 1983, p. 15.
6. Ibid., p. 10
7. W. Leiss, Social Communication in Advertising (Toronto: Methuen Publications, 1985), Chapter 10.
8. Ibid., p. 15.
9. R. Anderson and R. Richards, "Rise and Fall of Centralized Computer Information Systems in Agriculture", Unpublished paper, 1985.
10. B. Price, The Political Economy of the Mechanization in Agriculture, (Colorado: Westview Press, 1983), p. 4.
11. Compiled by the Agricon Division of Fletcher/Mayo Associates.
12. Maclean and Hunter Research Bureau.

13. Financial Management Survey, Country Guide, 1984.
14. Ulrich's International Periodicals Directory, 23rd ed.,
(New York: R.R. Book Co., 1984), p. 46.

II. A Theory of Needs and Satisfaction

A key concept propounded by Leiss in his essay, The Limits to Satisfaction (1976), describes the basic character of the present situation in Western industrial nations as "a market economy in which there is a very large number of commodities available to large numbers of people, and in which many commodities are the result of sophisticated scientific and technological knowledge." He argues that the general tendency within this setting is for people to direct all their efforts for satisfying their needs towards the consumption of goods. Since every aspect of life is opened to market mediation, problems arise because the market itself works to make the satisfaction of wants difficult if not impossible. In order to understand these problems Leiss proposes a theory of the relationship between needs and commodities which identifies and examines the different aspects of human needing and modern commodities pertinent to the problematic character of want-satisfaction today.

Another major concern of Leiss, which he tries to incorporate in his discussion of human needs, pertains to the ecological context within which modern society exists. According to him, the needs of the "high-intensity market setting" for an ever-widening array of commodities" are satisfied with the intensified use of energy and material resources. Made more and

more efficient and sophisticated by advances in science and technology, the "domination of nature" is seen from a purely utilitarian perspective, i.e., for the satisfaction of needs as defined in the market, thus ignoring the possible dangers for the environment.

This chapter outlines the major concepts which constitute the theory of interaction between needs, commodities and the environment. It also provides a brief account of the study Leiss conducted with Kline in 1978 on the transformation of consumer goods advertising imagery during the span of 70 years in the twentieth century, which illustrates the social representations of the relationship between people and things.

Based on this theory of want satisfaction and its application to the study of consumer goods advertising, I investigate my contention that agricultural advertising messages reflect a particular definition of the relationship between modern farm technologies and the farmer today. I presume that since representations utilized in agricultural advertising are also determined by the "high-intensity market setting" which according to Leiss governs all forms of want satisfaction today, agricultural ads are not essentially different from consumer goods ads. But I propose that since agricultural advertising deals with products which are not directly consumed but are used to produce consumer goods, and that since it is directed to a very specific group of people, it has a particular reconstruction of the relationship between people and things

which distinguishes it from consumer goods advertising.

Among the agricultural advertisers themselves the differences between agricultural advertising and general consumer advertising still provide ample material for discussion. The main distinctions pointed to by Advertising Age are the following.²

- a. Most agricultural products are a production input purchased with the purpose of making profit.
- b. Market segmentation is based on information such as regional characteristics, soil type, animal or crop raised, size of farm, and other related things.
- c. There are very few national advertisers but there are advertisers whose national advertising is a composite of regional and local advertising that takes into account the many purchasing variables that cannot be accommodated on a national basis.
- d. The products advertised do not involve frequent purchase.
- e. In terms of exposure to the ads, agricultural advertising is still talking "reach" while consumer goods advertising is concerned about frequency.
- f. In consumer advertising, the ad is the

salesman while in agricultural advertising the ad is just part of the general marketing mix where the dealer plays an important role.

- g. The size for the audience for agricultural ads is smaller by consumer standards.

An indication of how the relationship between the farmers and their production needs are defined by advertisers can also be gleaned from the results of a survey conducted by Advertising Age in 1981 on American farmers.³ The survey had the following conclusions.

First of all, the advertisers should know how the farmers work. In the U.S. and Canada, the average farm is run by one man who works about as much as he and his family can handle by themselves. This means that the equipment and products used by the farmer have to provide the labor that used to be supplied by hired hands, and they must do it with maximum efficiency. To be more productive farmers have had to increase the size of their farm and purchase bigger and more efficient machinery as well as buy big quantities of chemicals, seeds, and other supplies. Because the farmer is dependent on his equipment and products, according to Advertising Age he, develops a good idea of what he needs.

Secondly, advertisers should know how farmers keep up with new developments since the farm market is so diffused. According to the survey, farmers pinpoint the media and word of mouth as

the common ways of disseminating information about new technologies in the farm.

Thirdly, agricultural advertisers should understand the farmer's unique needs. Farmers' needs change from product to product, so specific information has to be developed for each product that the farmer buys. According to the 1,100 farmers interviewed, the things they are looking for in buying farm machinery and equipment are the following (in descending order of frequency):

1. Strength in build
2. Better-made parts
3. More dependable/more quality control
4. Better gas mileage
5. Lower price
6. Easier to maintain/repair
7. More comfortable
8. Parts should always be available

When considering expensive pieces of farm equipment, price ranks well below dependability and performance in importance.

Asked what they would like their herbicides or pesticides to be, the farmers gave to Advertising Age the following responses (in order of frequency).

1. Better/more effective
2. Lower price
3. Less harmful to humans and animals

4. More variety, easier to mix, more information on new products.

Lastly, advertisers should remember their "country manners" which were defined by Advertising Age as based on being honestly helpful, interested in the other fellow and ready to lend a hand. Almost all farmers interviewed said that the neighboring farmers and ranchers cooperate more and work more together than do families in other occupations.

Problems of Satisfaction Today

The problematic character of the present situation in highly industrialized societies, argues Leiss, concerns the risks posed for the individual, the society as a whole, and the environment. Such risks are presented by the forces of the existing market order. He states that there are physiological risks involved as craft knowledge or "that kind of knowledge appropriate for judging the suitability of things in relation to the objective of our needs"⁴ deteriorates due to the fast and constant replacement of existing goods with new ones. He cites certain types of maladies like poor nutrition, some forms of cancer, hyperactivity in children, and drug dependence which can be correlated to the uninformed consumption of modern goods. With regards to the farm inputs being used at present, a large amount of information made public by the provincial and federal governments in Canada suggest that insecticides and herbicides

do pose risks for the users. A recent report done for the Canadian Environmental Advisory Council admits that pesticide use has increased five-fold during the past 20 years, and at the same time the Ministry of Health and Welfare in Ottawa has recorded a rise in the number of pesticide poisonings across Canada. One expert (Frank Labella, a University of Manitoba pharmacologist) on pesticide toxicology also acknowledges that the widespread use of agricultural chemicals has adversely affected the health of farm families. According to him any segment of the population exposed to such hazards as asbestos, herbicides, or even printer's ink will experience ill-effects. This is not the only danger in using high rates of chemicals in the farm. The "residuals" or the toxic substances which remain in the crops or livestock products even after having undergone processing have also been linked to certain types of illnesses in consumers of these products.⁵

Psychological risks are also present due to lack of sufficient knowledge to form the basis for a rational purchase. Through advertising and interaction with other consumers, individuals in their day to day existence are barraged with messages about the products available in the market - each product claiming to provide the form of satisfaction needed. As a consequence, individuals experience a growing indifference toward their needs. A clue which indicates this increasing shallowness of desires, according to Leiss, is the rate with which individuals change their choices of products. Constant

experimentation becomes a dominant feature of consumers' efforts to find the object of their satisfaction. Agricultural breakthroughs in everything from farm machinery, fertilizers and herbicides to crop scheduling and new varieties of crops have the same consequences for farmers. As Advertising Age proclaims, the farmers today are more innovative.⁶ They are no longer hesitant to try new types of pesticides or new farm equipment. This, however, can be regarded as a statement to justify the rapid rate which new products are developed rather than a positive assessment of how the farmers have changed. It is not uncommon, for example, for farmers to express complaints about the fast changing farm production technology which does not give them enough time to cope or to become familiar with its use.

With the greater variety and complexity of goods produced today there also exists the potential danger of what Leiss calls the fragmentation of needs. He says that this is equivalent to the breaking down of the personality into smaller components which then becomes difficult to assemble into a coherent whole. This is quite obvious when one looks at the widening range of products being sold to women. The total appearance becomes the function of different products used for different parts of the the body for different purposes. The fragmentation is endless as the products themselves change and the purposes which they are to serve are constantly being specialized.

Specialization is also a chief trend in the farm industry. Farm operations are increasingly being subdivided and different

products are produced for each of the divisions. This sets a whole new attitude towards farm work which comes to be considered a business enterprise requiring more elaborate decision making. Another implication of the increasing specialization is related to the almost total reliance of farmers on the market. As reported by Advertising Age, more farm inputs traditionally provided by the farmer himself are now being purchased in the marketplace. This includes custom application of fertilizers and chemicals, the leasing of machinery, and the custom hiring of harvesting.⁷ This all adds up to more market penetration, i.e., increasing dependence on the market.

The third danger posed by the present setting concerns the environment in which we live. This is our most pressing concern - and it is of major importance to the present project. Summing up his argument Leiss says

It is the social practice of the high-intensity market order, institutionalized in varying degrees in the developed nations and promoted elsewhere (by economic and ideological warfare) as a universal ideal that is responsible for having dissipated much of the planet's readily available resources, for making survival of the existing population dependent upon energy-intensive agriculture, for creating the necessity for future reliance upon nuclear energy (with its attendant dangers) and for introducing the massive quantities of toxic compounds into the biosphere.⁸

Capital and energy intensive operations in the farm have been pointed to as one of the causes of the altering natural fertility and structure of the soil used for crop and livestock production. In addition, in spite of advances in science and

technology, techniques geared mostly towards increasing productivity have not proven foolproof as claimed. One has only to remember the Bhopal incident in India where poisonous gas leaked from a pesticide plant owned by Union Carbide, and the string of similar incidents all over the world, industrially developed nations included, to realize the enormous risks present.

All these are aspects of what Leiss calls the problem of market-based expectations which is rooted in modern society's tendency to direct all needs toward the realm of consumption. The first step suggested toward limiting these problems is to understand the relationship between people's want and the goods supposed to satisfy them.

Double Ambiguity

The theory of ambiguity proposes that "the ambiguous character of needing consisting in the material and symbolic correlates that are interwoven by the socialization patterns which shape the interpretation of needs, is reproduced in the material objects that minister to our needs along the journey to fulfillment."⁹ The ambiguity of needing according to Leiss arises from this duality which regards needs not only in terms of the "material exchanges of life" but also in terms of how this material aspect is interpreted within the social system. The need for convenience for example, can be defined in endless

ways depending upon the influence of the existing social patterns. The other element of ambiguity rests on the commodities which Leiss considers as "collections of characteristics" that are governed by both the physical properties of the product and the perceptions of the uses of the product. In the existing social form dominated by the market "objects become more and more unstable collections of objective and imputed characteristics - that is, highly complex material-symbolic entities"¹⁰ and the impetus which creates the imputed properties comes from the market itself.

Leiss rejects any attempt to order or classify needs into the biological or cultural, true or false categories because according to him this effort to categorize needs ignores the fundamental characteristics of human needing - that it is constituted of material and symbolic aspects which cannot be defined separate from each other. He says that "available evidence shows clearly that there is no aspect of our physiological requirements that has not always been firmly embedded in a rich tapestry of symbolic mediations. Likewise, higher needs (love, esteem, and others) also arise within the holistic interpretation of needs and are not separate from the material aspects of existence."¹¹

The matching of needs and goods is extremely difficult in the present market setting where the meanings of objects and needs become more and more fluid. Putting it another way - all human needs are mediated and this mediation has become so

complex in the present situation that the establishment of a direct and uncomplicated relationship between a need and its satisfaction is very difficult to achieve. It is ironical that in modern agricultural practice, a particularly good crop becomes an economic disaster. Productivity is channeled towards specific directions in order to "stabilize" the market. While millions of people stay materially deprived, masses of agricultural produce are destroyed or thrown away so as not to "disturb" the economy. Needs and their satisfaction under this situation are defined in terms contradictory to the social good in general.

The regard for nature as merely a resource to be manipulated so that we can obtain the objects that feed the high consumption lifestyle characterizes the dominant interpretations of technology. The problem according to Leiss is that "we are encouraged to ignore the confusion that exists in the relationship between our needs and the means by which we attempt to satisfy them, because our attention is fixated on ransacking the environment for more and better resources."¹² In a modern farm enterprise, the land, which in traditional societies provided the basis for the continuity for human cultures, has become a form of capital which should be made profitable by increasing its capacity to produce. But fertility loss in the soil is a major consequence of the chemically based agriculture with deep plowing practised in North America.

Advertising Imagery

Leiss suggests that the ambiguity of want satisfaction in highly industrialized market economies can be examined by looking into the marketing images projected in the product designs, packaging, store displays, fashion trends, peer group influences, and media-based advertising. Among these he holds up advertising as the "significant sign system" within which the confusion about needs and how to satisfy them is most visible.

In a study of advertising imagery he conducted with Kline in 1978, two major trends in presenting product imageries through the greater part of the 20th century are observed.¹³ One of these developments is the increasing implicitness in the statement of values and the growing use of "lifestyle images", i.e., images which depict people engaged in specific activities in a recognizable situation emblematic of a particular way of life.¹⁴ The other development is the decrease in textual material accompanied by an increase in the use of visualization in presenting images of well-being. They conclude from this that the growing use of "imagistic modes of expression", while increasing the attention given to ads and facilitating the process of associating the product with certain values, also allows for more ambiguous interpretations. With the intensification of market activities, selling techniques are constantly altered such that the products promoted become a "projective field in which the human states of feeling

achievable in consumption are fluidly superimposed upon the non-human, physical sensory aspects of the commodity."¹⁵

Through complex and sophisticated market research efforts the advertisers try to find out about consumers' predispositions in order to be able to design a product image suitable for different groups of consumers. Depending on their analysis of the target market, they can make their advertising messages more open or more closed to interpretation. This specialization in market reach or market segmentation is one of the most significant strategies employed by the modern advertising industry. It has become a determining factor in construing the relationship between persons and commodities, as pointed out by Kline and Leiss. Based on the findings of their study they illustrated that through market segmentation a narrow range of products tend to be associated with a decreasing number of cultural values identified as relevant to a particular social group. The farmers as a specific market segment is the focus of market studies conducted by agribusiness corporations and agricultural advertisers. The next chapter presents the method of analysis used in examining how these groups, through advertising images, define what the farmers' needs are and how these needs are satisfied.

Notes

1. W. Leiss, The Limits to Satisfaction (Toronto: University of Toronto Press, 1976), p. 7.
2. Pritzker, Advertising Age, December 3, 1979, pp.s10-s11.
3. Cornick, Advertising Age, Sept.7, 1981, pp.s1-s2.
4. Ibid., p. 15.
5. "Poisons on the Farm," Macleans, December 10, 1984, pp. 42-44.
6. "Farm Advertisers Widen Media : Survey Shows Radio, TV Impact," Advertising Age , August 25, 1975, pp. s29-s30.
7. "Specialization Keys Today's Farming, " Advertising Age, November 18, 1984, pp. 105-106.
8. Leiss, Limits to Satisfaction, p. 100.
9. Ibid., p. 92.
10. Ibid., p. 18.
11. Ibid., p. 90.
12. Ibid., p. 43.
13. S. Kline, "Images of Well-Being: Market Segments and Usetypes and a Study of Canadian Magazine Ads," A paper

prepared for the CCA Conference in Vancouver. 1983.

14. Ibid., p. 29.

15. Ibid., p. 18.

III. Analysis of Agricultural Ads from 1943 to 1983

This study examines agricultural advertisements from 1943 to 1983. It attempts to illustrate the nature of these advertisements and explores the way in which they address their audience. Aside from determining the patterns in which agricultural advertising images change over the said period of time, this study tries to examine whether there are major differences between ads for farm machinery and farm chemicals. While both products are in the center of most controversies on the modernization of agriculture, farm chemicals are becoming more prominent in terms of the increasing amount of agricultural chemical advertising in farm magazines.¹ It is therefore deemed useful to examine how each product type is represented in the ads. Specifically, this thesis seeks to answer the following questions:

1. What information do the ads give about the product?
2. What types of interpersonal relations are used?
3. What social groupings are shown?
4. What types of activity are portrayed?
5. What types of lifestyle are portrayed if there is any?
6. What types of rhetorical device are used in constructing arguments?
7. What styles and modes of presentation are used?
8. What values are stressed and utilized?

Since these questions are mainly concerned with variables which can be measured by looking at the ads alone, the conclusions that are made from the interpretations can only be attributed to how agricultural advertisers perceive their market. In other words, this analysis examines how the agricultural advertising industry defines the relationship between the farmer and his environment. It does not ignore the importance of determining how the farmers understand what agricultural ads present to them but that undertaking is an entire project on its own. Since the advertisers form one of the major groups which to a large extent determine the representations of "farm life", the ads themselves indicate what is being said about "modern" agriculture and how it affects society.

Content Analysis as Systematic Interpretation

Content analysis as "systematic interpretation" is used in this study to locate and examine the trends or patterns of changes in the imagery of agricultural advertisements from 1943 to 1983. This method, used by Kline and Leiss in their study of consumer goods ads, is adopted in view of the aim and the questions posed by the present project.

This type of content analysis is described by Andren et. al. as systematic in the sense that it must be designed to secure data relevant to a scientific problem or hypothesis.

According to them this implies that the results of the study must have a measure of general application.² Sepstrup also points out the importance of analyzing messages in terms of their significance to categories relevant to the problem at hand. He suggests that in order to avoid analyzing content independent of the social context (i.e., when society's existence in the text is not realized), there should be a more comprehensive theory behind the study. According to him "theories should ensure a considerable number of ways to approach the text and make it possible to incorporate categories which include the social context of the content."³

A major criticism of content analysis as a research method concerns its emphasis on the examination of manifest content or surface meaning. This limitation is well-accepted and has led some recent social researchers to loosen up the rigidity common to the traditional form of content analysis. Andren et. al. use a type of investigation which classifies the ads not according to the occurrence of specific linguistic signs but according to their semantic content, or the propositional entities factual, evaluative, or normative, under a certain interpretation.⁴ In order to ensure the reliability in interpretation they propose the establishing of categories prior to the interpretation stage of the study. These categories lay down certain rules of interpretation for each part of the chosen material which enables the coder to take account of the variations in meanings of the particular segment of the ad being analyzed.

Thus content analysis viewed as systematic interpretation concerns itself not merely with surface meanings but also with the underlying (or implied) meanings which can be drawn through an interpretation guided by a set of rules governed by the nature and objectives of the study. This set of rules which Kline and Leiss refer to as the protocol or "a code through which the interpreter of a corpus deciphers the text"⁵ is crucial to determining how good the analysis is.

Coding Protocol

The coding protocol used by Kline and Leiss is adopted in this study. This requires the breaking down of the components of the advertisements into four parts , namely, the text, product, person, and the setting or background. These visual components are then analyzed individually or in combination with each other in terms of the categories and rules of interpretation. A preliminary test was conducted using their protocol in analyzing 20 agricultural ads and the results indicated the need to discard a few of the categories. The protocol version actually used in this study is as follows:

Variables (1), (2), (3), (4), (5), (6), and (7) deal with the "objective" characteristics of the ads.

1. Size: 2 or more pages, full page, 1/2 page, less than 1/2 page.

2. Color: black and white, full color, black and white with another color.
3. Image portions: the amount of ad space occupied by each of the visual elements - text, product, person, background/setting. Each element is rated on a scale of 1 to 10, with 10 corresponding to the highest value (100%).
4. Image mode: whether the product, person, background/setting images are presented as photographs or illustrations.
5. Use type: whether the product advertised is a farm machinery or a farm chemical.
6. Product use: indicates how the use of the product is presented, i.e., product not shown, product shown not in use, product use implied in image, product use implied in text, product use implied both in image and text, product shown in use, product use described.
7. Estimated word count: number of words in the text, excluding writing on the product itself and the slogan, i.e., less than 10 words, 10 to 20 words, 20 to 50 words, 50 to 100 words, 100 to 250 words, more than 250 words.

These variables measure the emphasis given to the different elements of the ad to determine whether or not there is a trend towards increasing use of imagery or visualization (as opposed to the use of text) in the ads within the time period being studied. 3,211 ads for farm machinery and farm chemicals are

analyzed using these variables.

Starting from variable (8), only 300 ads selected using a sampling method discussed in this section of the thesis, are examined for the more in-depth analysis. Reducing the number of ads at this level of analysis is made due to time and staff limitations.

8. Textual themes and emphasis: measures the level of emphasis given to textual themes and other information on a scale of 0 to 5, with 5 corresponding to the highest value. Categories under this variable are classified into three types.
 - a. Product qualities
 1. Instructions on how to use the product (preparation, mode of application or use, timing, ease of use, skills necessary, other knowledge for use).
 2. Description of product characteristics and make up (chemical composition, color, odor, enumeration of product types, parts, models, and other performance characteristics).
 3. Metaphoric and analogic description of product qualities (tractor that handles like a kitten).
 4. Description of scientific proof of effectiveness (technological demonstration, tested proof of results).
 5. Description/story giving account of user/ implied user, type of user, user characteristics, identifies reader as user.
 6. Testimonial, recommended by qualified person (describe qualifications).
 7. Description of conditions, social or economic, or context of product use.
 8. Personification of the product, analogy of product with human qualities, description of product in human terms.

- b. Accounts of consequence of use
 - 1. Job done efficiently, less time, less labor, scientifically, without health hazards (user's relation to the completed task).
 - 2. Account of product's power (consequence not characteristics).
 - a. White magic: control exerted by product's power over natural forces or elements; it captures, controls, owns, channels, makes available natural forces for use.
 - b. Black magic: control exerted by product's power over other people; allurements, influence social standing, liking, impressing, social judgement.
 - c. Self-transformation: product has power to change self, testimony of power, reduce anxiety, change personal effectiveness, become ideal, other, become member of a group or class.

- c. Other themes
 - 1. Description/account of process of production (craftsmanship, care, technology, input, others).
 - 2. Account of social relations of production, depiction of producer as an institution of a particular type, allusion to ownership and management, support of free enterprise, free market, competition.
 - 3. Allusion to a problem of choice in consumption/purchase, confusion in the marketplace, comparison of product directly with others.
 - 4. Problems of knowing about the qualities of the product, conditions of the market, e.g., price information, what is available, keeping up with changes in society or marketplace, inadequate information.
 - 5. Value for money.
 - 6. Blanket evaluative terms.
 - 7. Description of an emotional reaction, satisfaction, or personal relationship to the product directly.
 - 8. Description of an emotional reaction or satisfaction based upon use.

Variable (9) is concerned with with the user representation in the ads according to the following categories. Each category is mutually exclusive.

9. User representation

- a. Are persons shown users?
- b. Age
- c. Race
- d. Sex
- e. Dress
- f. Representational mode
- g. Grouping
- h. Emotional reaction

Variable (10) deals with the background or setting portrayed in the ad in terms of the following categories.

10. Setting

- a. Type of setting
- b. Mood of setting
- c. Place of setting

Variable (11) indicates the symbolic dimensions presented in the text and image (non-textual element). Components are analyzed separately according to the categories below to identify areas where the symbols are manifested in the ads thus determining the roles of the text and image in conveying meanings.

11. Symbolic dimensions

- a. Interpersonal relation
 - 1. None
 - 2. Familial
 - 3. Parental
 - 4. Friendship
 - 5. Confidence in authority/expertise
 - 6. Others
- b. Activities
 - 1. None
 - 2. Use of product
 - 3. Maintenance of possessions
 - 4. Travel
 - 5. Purchasing
 - 6. Resting or relaxing
 - 7. Others

Variable (12) deals with the rhetorical form or the content of the argument being presented. The most dominant forms used are chosen. The following categories are used.

12. Rhetorical form (content)

- 1. Rational appeal: reasoned argument based on product qualities (price, proof, comparison test, utility, value)
- 2. Worry appeal: if you don't use the product negative consequences might occur.
- 3. Expert appeal: argument based on the recommendation of expert (engineer, dealer, scientist, others)
- 4. Typical person appeal
- 5. Statused reference group: product is associated with popular, or enviable person or setting.
- 6. Peer appeal: product depicted as popular, universality.
- 7. Star appeal: association with known person.
- 8. Relief appeal: product is associated with reduction of anxiety.

9. Nostalgia appeal: recapture old values.
10. Offer, prize, contest, coupon, sample.

Variable (13) indicates the style of address or the style used in presenting the argument. The most dominant style for each ad is chosen.

13. Rhetorical form (style)

1. Humor: amusing, gimmicky, cute, ironic.
2. Pleasing imagery: soft, pretty, natural scene, sunlight, use of colors.
3. Tells a story.
4. Cartoons, graphics, animals.
5. Studio setting for product.
6. Before and after use of the product.
7. Design reference: uses period style, cultural item, historical, futuristic.

Variable (14) identifies the most dominant value used in the ads. The following categories are used as guidelines in interpretation.

14. Dominant value

1. Utilitarian, convenient, practical.
2. Efficient, effective, fast, easy, preventative.
3. Cheap, economical, thrift, offer.
4. Best, leader, number one.
5. Improved, new, modern.
6. Quality, workmanship, excellence, genuine.
7. Reliable, long-lasting, confidence.

8. Popular, normal, everyone uses.
9. Knowledge, in the know.
10. Patriotism, community, beneficial to all.
11. Work, toil, challenge.
12. Traditional values, nostalgia, historical.
13. Unique, special, unusual, unconventional.
14. Status, desirable, enviable.
15. Faith in technology, science.
16. Regenerative, conserves nature.

In summary, these are the variables used in this study.

1. Size of ad
2. Color of ad
3. Image portions
4. Image mode
5. Use type
6. Product use
7. Estimated word count
8. Textual themes and emphasis
9. User representation
10. Setting
11. Symbolic dimensions
12. Rhetorical form
13. Style of address
14. Dominant value

Sampling

Country Guide, a monthly farm magazine circulated nationwide in Canada, is selected because of its position as the farm magazine in the country with the highest circulation rate. Initially, the intention was to analyze ads published in this magazine from the time it first came out in 1902 until 1982 so that the analysis would cover the same time block used by Kline and Leiss in their study. Limitations in terms of time required

to handle such an enormous number of ads, however, made me decide to shorten the time period and use 1943 as the starting point. Arbitrary as the decision may be, the early 1940's is also a significant cut-off point in terms of the industrialization of agriculture in Canada. The replacement of horses by gasoline and diesel power during World War II and the technology of closed housing of animals and birds, accompanied by scientific feeding and disease control, greatly altered the nature of agricultural production.⁶

A preliminary count of ads in all issues in one year selected from each decade under study shows that the highest number of ads is in the spring months. The reason for this may be that most farm decisions are made within this time of the year when farmers are getting prepared for the next production cycle. With this consideration I decided to take my samples from the February, March, April and May issues of Country Guide to establish some control over seasonal changes that might be present. Throughout the text of this study, whenever I refer to my observations for a certain year, I always mean the spring months of that year. The sampling frame used in this study therefore consists of all farm machinery and farm chemical ads published in the spring months of 1943 to 1983. The total number of ads during this time is 3,211; 1,487 or 46% of which are for farm chemicals and 1,724 or 54% are for farm machinery. For the yearly breakdown of these figures see Appendix A.

Advertising Selection

The concern of this study is to locate patterns in the transformation of agricultural product imagery within the time period under study and as such a random sampling technique does not seem necessary. Rather, a sampling quota technique is used where a quota of samples is assigned. Considering all the present constraints mentioned earlier, 300 ads is deemed a manageable sample size.

A sample quota of ads is assigned for each based on a ratio comparing the total number of ads within that year to the average number of ads for that selected issues of the magazine each year. The average number of ads per year is computed thus,

$$\frac{3,211(\text{quota for all years under study})}{40(\text{total number of years under study})} = 80.$$

Based on the quota of samples chosen, each year should receive $300/40 = 8$ ads on the average. If the average number of ads per year is 80, and a particular year has a total of 90 ads $(90/80) \times 8 = 9$ ads are selected from that year. Ads falling under the two most frequent size categories are numbered and based on the ratios and quotas established. Each ad is picked using the lottery method. The breakdown of the samples is also indicated in Appendix A.

Analysis

A simple frequency count and the percentage of total are estimated for the entries in each category and the values for each variable are presented in graph form to make the trends or patterns more apparent. Farm machinery and farm chemical ads are examined separately in order to find out differences in their presentations.

The small sample size used in the examination of variables (9) to (14), namely, user representation, setting, symbolic dimension, rhetorical form, style of address and dominant value, is taken into account by analyzing the findings from these variables separately from that of the first eight variables.

Notes

1. "For several years western farm paper publishers have relied on agricultural chemicals advertising to replace the shrinking lineage from their traditional advertising base - the farm equipment manufacturers." Globe and Mail, July 10, 1985, p. B7.
2. G. Andren, L. Ericsson, R. Ohlsson, and T. Tannsjö, Rhetoric and Ideology in Advertising (Stockholm: AB Grafiska Gruppen, 1978).
3. P. Sepstrup, "Methodological Developments in Content Analysis," in K. Rosengren ed., 1980.
4. Andren et. al., Rhetoric and Ideology in Advertising, 1978, p. 21.
5. Kline and Leiss, Images of Well-Being..., 1978, p. 16.
6. The Canadian Foundation for Economic Education, 1978, p. 10.

IV. Discussion of Findings

The first part of this section presents a brief description of the major findings from the examination of the first eight variables which showed distinct changes within the time period studied. These variables, except for variable (8) which deals with textual themes and emphasis, deal with the "objective" or more "superficial" characteristics of the ads like color, size, image portions, image mode, use type, product use, and word count. The clarity of the trends and patterns shown in the figures drawn for these variables is attributed to the large sample size used for this part of the analysis.

The second part of this chapter deals with variables which require more interpretation as prescribed by the protocol laid out in the previous chapter. However, since the sample size used for this part of the analysis is small, there does not seem to appear a clear and meaningful pattern in the way in which the variables change through time. The limitations presented by the sample size therefore prevents any general interpretation of the results as I have done for the previous group of variables. My discussion of the second set of variables is arbitrarily based on tendencies or scattered and individual observations which highlight what I intend to illustrate in this study.

From the original protocol used by Kline and Leiss in their study of consumer goods ads, a cross-section of the categories

under each variable is selected and examined. The following discussion therefore is based on these selected categories and not on the entire protocol where more categories are included. Only the graphs plotted for selected categories are used for discussion.

Characteristics and information content

Size of ads

Figures 1 and 2 show how the size of ads changes within the period from 1943 to 1983. For both product types the increasing predominance of full page ads and the increasing number of ads occupying two or more pages are evident throughout the last ten years or so. Farm chemical ads however, tend to be relatively smaller than machinery ads particularly in the earlier years.

Color

As can be seen in Figures 3 and 4, the use of black and white gradually decreases from 1943 to the late 60's and then drops sharply from the early 70's when the use of full color picks up tremendously.

Image portions

Each visual element, i.e., text, product, person, and setting for each ad is ranked in terms of ad space occupied, on

a scale of 1 to 10, with 10 corresponding to the highest value, i.e., 100% of ad space. Then for each element the number on the scale with the highest frequencies are plotted in the graphs.

There are visible differences between farm machinery and farm chemical ads in terms of the proportion of the total image devoted to the representation of each visual element (Figures 5 and 6). Although the text for both product types is shown to be most dominant in the 40's and maintains a somewhat lower level beginning in the late 40's until the 80's the product and background images in farm machinery ads become bigger than textual images starting from the late 60's. Images of the product and the background in farm chemical ads on the other hand, remain subordinate to the text. A re-examination (Figure 7) of the frequencies of background images falling under the zero category however reveals the tendency for increasing portions of farm chemical ads devoted to the background or setting. For both product types, the person/user image is the smallest of all the ad elements all throughout the time period examined.

Image mode

Each ad's non-textual component is categorized as to whether it is presented as a photograph or drawn illustration and the percentage of total for the frequencies under each category is computed for each year.

The use of the photograph is very prominent in farm machinery ads all throughout, especially in the 1980's. A slightly different trend is observed in farm chemical ads as shown in Figure 9. Illustrations of the product continued to dominate into the late 70's while that of persons and settings began tapering off starting from the mid-fifties. The use of photographs until the mid-sixties seems to be confined mostly to the presentation of settings and persons. Not until the late 60's did the use of photography become the most common mode of presenting the product image.

Use type

It is shown in Appendix A that the number of farm chemical ads has increased tremendously in the last ten years of the time period analyzed.

Product use

This is concerned with how the use of the product is indicated in the ads. It also determines whether there are changes in the emphasis given to the presentation of the product. The image of the product being used remains very common in farm machinery ads during the entire period (Figure 10). When the product is shown not being used, its utility is somehow implied by clues presented in other images, e.g., setting and user appearance.

Earlier (40's to the 60's) farm chemical ads however tend not to show the product at all (Figure 11). Instead, sketchy descriptions, usually a general statement on what the product does, are given in the text or implied in the image. The product began to appear more in the ad beginning the late 1960's and again gradually waned towards the 80's. Generally, the use of the product is not shown but only implied in the text. An analysis of the textual themes also gave some indications on how the product use is presented (see next page).

Word count

There seems to be a continuous trend for farm machinery ads to use 100 or more words (Figure 12). On the other hand, there is more irregularity in the number of words used in the farm chemical ads (Figure 13). A vast majority fall into the 20 to 50 words category in the 40's and although the 100 or more words per ad became most often used after that, the 50 to 100 words seem to occur more frequently towards the 80's.

Textual themes and emphasis

a. Product qualities

On a scale of 0 to 5 the description of product characteristics has the most emphasis for farm machinery ads during the whole period (Figures 14 and 15). A closer look at these descriptions reveals however that they consist of sometimes detailed but more often sketchy enumeration of product

parts, models or varieties available, and more general descriptions of other performance characteristics. The next most commonly emphasized information in the text is the instruction on how to use the product. Very seldom though does it come in the form of a step by step procedure. As in most cases it concerns the ease and comfort of using the product and some knowledge relevant to its use, e.g., suitable conditions in the farm, timing and others related to the handling of the product. Testimonials, and scientific proofs of effectiveness rank third, metaphoric and analogic descriptions of the product come fourth and last are descriptions of product qualities in human terms (personification).

Rational information, i.e., descriptions of product characteristics and scientific proofs of effectiveness seems to be highest from the late 40's to the late 60's but declines during the early 70's (Figures 16 and 17). Emphasis on this information increases somewhat from the mid-seventies and gradually falls again towards the 80's. Metaphoric and analogic descriptions of the product appear to be the next most common textual theme especially in the late 50's and 70's. Testimonials and product personification are very minimal throughout the entire period.

b. Accounts of Consequence of use

It is clear from Figures 18 and 19 that descriptions of how the product does the job either quickly, efficiently, effortlessly, rationally, or scientifically, are the most

commonly used accounts of the results of product use for both product types. The amount of emphasis given to this category follows a pattern which is almost identical for both farm machinery and farm chemical ads, decreasing towards the 60's and then progressively climbing up again towards the 80's.

There is very little mention of the product's power over natural forces or elements (white magic) or other people (black magic) in farm chemical ads. Another significant finding is concerned with the relatively little emphasis (compared to the descriptions of job done) given to health hazards as a consequence of farm chemical use. There are, however, almost always notices or warnings to use the proper instructions in using the product, or to see the product dealer or agent for further details. These notices are very common within the entire time block under study.

c. Other textual themes

Among the categories under this variable, the emphasis on price, cost, or profit seems to dominate farm machinery ads from the 1940's to the late 60's. Emphasis on this theme, however, declines during the rest of the time period analyzed (Figure 20). The use of blanket evaluative terms is the next most frequent theme followed by the descriptions of the process of production. Accounts of care and efficiency in producing the product are highest in the 80's. They are also quite evident earlier, e.g., the 40's, but most accounts during this period relate to the limits in production posed by the conditions

related to World War II.

Monetary concerns are dominant in farm chemical ads (Figure 22), followed by blanket evaluative terms like, most effective control, excellent crop tolerance, and others, which seem to be highest in the 80's. Descriptions of the process of production are minimal throughout. Other categories such as description of an emotional reaction based on use and references to public interest are not given as much prominence although there are tendencies to emphasize them to a limited degree during certain time periods (Figures 21 and 23).

Symbolic dimensions and rhetorical devices

User representation

a. Are persons shown users?

There is a general tendency for the farm machine ads to show the person actually using the product. Very few non-users are shown. If the product is not being used, for example, when it is presented in a studio setting or display room or just sitting on the farm, the text and the person's appearance as well as his position in relation to the product (whether leaning on it, looking it over, or standing beside it) imply that the person in the ad is a user (Figure 24). In chemical ads, the use of the product by the person in the ad appears to be established in the text or other visual cues. As shown in Figure 11 it is

common for farm chemical ads not to show the product being actually used. Perhaps this is an indication of how the dangerous aspects of farm chemical use are concealed in the ad. The proper use of herbicides and pesticides usually require the farmer to wear some sort of a protective gear which if shown in the ads might indicate the risks involved in the use of these products.

b. Other user characteristics

Even a cursory glance at the agricultural ads will point out significantly that most of the persons shown are mature adults, male, and white.

Working clothes seem to be the common attire. It is also interesting to mention that although persons using the product are in their working clothes, there does not seem to be any signs indicating the actual nature of the work being done. Persons in the ads look clean and relaxed even while operating the combine or the cultivator - which is probably one way to emphasize the convenience and comfort derived from product use.

Laboratory coats, uniform (usually worn by the dealer or product agent), and other attires like period costume, space suit (worn by the supposed user of the tractor which sits on what appears to be the surface of the moon), formal suit and tie (usually worn by expert figures ,e.g., engineers, product agents, bank representatives) are becoming more common in the ads examined from 1970 onwards.

c. Representational mode

The farm ads analyzed usually show the ordinary or the John Doe type of person (Figure 26 and 27) which establishes credibility in terms of the portrayed person's likeness or similarity with the reader of the ads. There are however, particularly in recent years, a few presentations of the ideal person type whose credibility is based on idealized characteristics such as attractiveness and likeability. Popular personalities like hockey players, historical figures, and highly successful farmers are also used.

d. Grouping

Most ads show the solitary farmer (Figures 28 and 29) and there are only a few instances when the male collectivity is shown. The portrayal of the family seems to be common in the 70's particularly in farm machine ads where the center of activity is built around the product itself. A tractor ad for example shows the supposed father taking his coffee break as he sits on his John Deere tractor, his wife standing beside the tractor appearing to be engaged in an animated conversation with him, and the children playing with the dog. Mixed groupings are also shown but rarely. In these ads, the product is usually the center of attention around which the people are gathered, admiring or in some cases appearing as if they are celebrating the presence of the product.

e. Emotional reaction

The person appears to be almost always without any emotional reaction aside from being serious and concentrated in using the product. Pleasure or satisfaction, whether related to the product or not, are shown in some instances (Figures 30 and 31).

Setting

The presentation of the setting or background are examined by determining whether they are shown or not, and if shown, where are they located.

The majority of the ads show settings which can be identified. The setting seems to always be the farm where the product is shown being used or simply superimposed (Figures 32 and 33).

Many colored ads, usually in the latter part of the period examined, tend to utilize the different aspects of the natural surroundings, e.g., sunset, blue sky, green pasture, i.e., the traditional aspects of farm life which are associated with the supposed benefits of living close to nature.

There are also a few ads which utilize other settings like display rooms and laboratories. An ad for a tractor for example shows the machine outside a cinema with the bright marquee declaring who the star of the show is - in this case, the tractor. Another tractor ad which I have mentioned earlier, shows the product on the moon's surface.

Symbolic dimensions

The text and non-textual elements of the ads are analyzed in terms of what they say or show about interpersonal relationships and the activities in the ads. The text and the images are analyzed separately to determine the role each of these elements play in the production of meanings in the ad.

Textual

a. Interpersonal relationships

Confidence in authority or expertise appears to be most often used by the ads (Figures 34 and 35). This observation is based on the presence of statements in the text which refer to the product performance characteristics and use which are expressed with authority or knowledge. Family togetherness and cooperation between farmers and the community are also sometimes utilized but to a somewhat lesser degree. Early ads, particularly those around the 1940's stress cooperation between farmers and the product manufacturers in response to prevailing production constraints posed at that time by World War II.

b. Activities

Most activities mentioned in the text of the ads refer the purchase or use of the product and its consequences (Figures 36 and 37).

Image

a. Interpersonal relationship

Interpersonal relationships do not seem to be present in the images shown by the ads (Figures 38 and 39). This could be

explained by the previous observation that most ads show the farmer all by himself. If any, confidence in authority or expertise is implied where the source of confidence is the product itself. Familial relations are quite rare.

b. Activities

As shown in Figures 24 and 25 the most common activity portrayed through the images is product use or something related to it like inspecting the crop or checking the equipment.

Persuasive appeal based on text and image

This variable deals with how the argument in the ad is constructed and presented in the text and image, i.e., how the main proposition is conveyed in terms of the content and style of presentation.

a. Rhetorical form: Content

The rational appeal predominates in farm machinery ads (Figure 40). This is based on arguments about the characteristics of the products and the consequence of its use on costs, labor utilized, i.e., on product efficiency. Other appeals such as associations with statused reference group, peers (the successful ones), and experts are also used in some ads. A number of farm chemical ads utilize the worry appeal, which plays on the negative consequences of not using the product. The relief appeal also seems to be more often used in chemical ads where the product is associated with reduction of anxiety (Figure 41).

b. Rhetorical style

With regards to the presentation, there seems to be consistently frequent use of the more straightforward use of lay-outs, graphics, and photographs particularly in earlier ads. Getting more often used in more recent ads however are pleasing imageries, e.g., sunset, flowers in bloom, idyllic farm scenes; futuristic (high tech) and historical designs (nostalgia); mythical designs; and humor (Figure 42).

The same tendencies are shown by the farm chemical ads analyzed except that in the earlier period they seem to use more cartoons and drawings of animals (Figure 43).

c. Dominant value

The most consistently emphasized value in both product types is related to the efficiency, ease, reliability, suitability, or in other words, the utilitarian properties of the product (Figures 44 and 45).

Other values aside from the usefulness of the product are emphasized in some ads. These values include: popularity, profitability, novelty, scientific authority, knowledge, power, luxury and others which are associated to the qualities of the product and its use.

V. Summary and Conclusion

The first part of this thesis stated the importance of looking at the patterns by which agricultural technology is presented in the commercial discourse of agricultural advertising. It was suggested that an examination of advertisements for farm products could reveal how the advertisers define the relationship between the farmers, their needs, and the means by which these needs are satisfied. It was stated that like consumer goods advertising, agricultural advertising directed to a specific market and dealing with a particular product type has its own way of defining the relationship between persons and commodities.

Part two provided a framework for analysis by pointing out the relevance of a theory of needs and commodities, which offers to explain why the fulfillment of desires in the present market setting in highly industrialized societies has become problematic, to the study of agricultural advertising. I argued that with agriculture being dominated by the requirements of the present market economy, new farm technologies can not fully provide the satisfaction they promise because the primary concern for increased material production sets aside any genuine consideration of the possible negative consequences new technologies might have on society and its environment.

In the third part, I presented the method of analysis I used in the study of agricultural advertisements from Country Guide. It includes a detailed enumeration of the variables and categories measured. The rules of interpretation which define the observations to be classified under each category are also laid out.

Part four gives a detailed discussion of the major findings derived from the analysis.

I will now outline the major findings of Kline and Leiss in their analysis of consumer goods advertising imageries. Based on this discussion I will summarize my findings before drawing any conclusions.

Images of Well-being

In their attempt to draw the changes in the way in which advertisers define and direct meanings to specific audience segments, Kline and Leiss (1978) found two important trends pertaining to the form and content of the ads themselves. One is the stability in the cultural values utilized in the ads. They conclude that

On this level our gaze into the image pool appears as a consistent reflection of the normative cultural order - a cultural order which perhaps becomes more coherently defined in advertising, but hardly changes over that period of seventy years.¹

Another trend they observed is the increasing visualization of the symbolic aspects associated with the product. Accompanied

by the decline in textual material, this visualization according to them "not only helps to account for the increasing concentration of values but also for the decline in importance of product utility information as the basis of the relationship between persons and things."²

By breaking down the advertisements into four components - text, product, person, setting, they were able to trace four significant phases showing patterns in how the relationships between people and things are construed in advertising imageries.

The first phase is characterized by what Kline and Leiss call the product ad. Dominant from the early twentieth century to the 1920's, ads emphasize product characteristics and utility, i.e., the use of the product, its performance characteristics, and its price. These themes are usually found in the text in an exaggerated or descriptive form. The product's packaging is usually present in the ads. Illustrations are most often used and the general appeal is based on utility, efficiency and other "rational" criteria.

The second phase which is most significant between 1920's and the 40's is dominated by what they call the product symbol. The increasing use of photography at this time allows for the more "tangible" presentation of the product. There is also a greater tendency in the text to associate the product with certain abstract qualities aside from its "objective" characteristics and use value, e.g., products were shown being

admired, or being the source of pride and envy, as capable of reducing anxiety. There is an increasing use of visual images in establishing the association of the product with symbolic qualities. In other words, utility is less emphasized. According to Kline and Leiss, even "efficiency" becomes an attribute of product qualities rather than its performance.³ Texts and images merely duplicate or explain each other, with the image presenting the symbolic quality of the product and the text explaining it. "Irrational" appeals, particularly white magic or the ability of the product to capture a power of nature, are increasingly used. The social relations most frequently depicted are those of status, the family and of scientific authority.

There is a shift of focus from the product to the persons shown in the ads from 1945 to 1965. This phase is called personification. Photographs of the "ideal" person dominate that of "ordinary" persons. Kline and Leiss conclude that this tendency reflects a "process of fantasized completion of the self through the relation to the product."⁴ Sensuality, both in the presentation of the product and the person's relation to it, is emphasized. This is commonly conveyed through the use of color to highlight the sensual properties of the product and through depictions of pleasure which is expressed by the person as a "felt response" to the product. Romantic relationships become more prevalent in addition to family relationships. Different forms of black magic are increasingly attributed to products. Persons shown appear to be transformed into the image

of the self defined in fantasy by the product.

The fourth phase called "lifestyle" reached importance in the 60's. The text for many product types became more cryptic, poetic, sloganistic, or funny. It did not duplicate or explain the image, but played a key role in determining what interpretations can be made from the images. The setting gained more importance in the presentation of values or symbols. Social relations have shifted increasingly to either individual or group activities in a recognizable situation defined by the setting depicted. There is also an increasing portrayal of "ordinary" people. This final phase therefore seems to emphasize the relationship of persons, products and settings not through the product use and its consequences but in a "situation" which characterizes a particular way of life.

It is important to note at this point that Kline and Leiss recognize that these stages are true only on the broadest level of emphasis on a historical scale. As Kline points out,

In fact and possibly more significant this study shows that particular forms arise, and rather than disappear, become concentrated as a mode or presentation for particular products or audience segments...the point here is that it is difficult to speak of a single relationship to objects; at least as depicted in advertising. In the contemporary marketplace it would seem that the product-person relationship is both psychologically and socially articulated. Different product categories seem to resonate on different relational registers. Some goods are for display and social judgement, and some to locate us in the nexus of group relations. And some are just bought because they are cheap and do the job.⁵

Images of Utility

Since Kline and Leiss' findings derived from consumer goods advertising, the results of a study of agricultural advertising are expected to show certain particularities about what meanings are articulated about the product which in this study are farm products used in the process of farm production rather than for direct consumption. With reference to Kline and Leiss' findings about the four phases, it seems that in the farm ads I examined, the product phase continued to dominate during the entire time period studied. Product use and characteristics, no matter how sketchy or exaggerated continued to be emphasized and conveyed through both the text and the image.

The persons in agricultural ads are often shown alone, and made to look credible based on their similarity with the audience, the farmers. The type of appeal used is rational but also increasingly used are less rational appeals like the association of the product with experts, peers and statused groups.

In general, the relationship between the farmer, the product and the setting seems to be defined by the product itself, contrary to the contemporary form of consumer goods advertising where the setting defines the relationship of people and products in the ad.

The models of farm life depicted in agricultural ads analyzed in this study embody the ideals of material prosperity

and well-being promised by new farm technologies which can only be fulfilled through the use of modern farm innovations.

Tractors are not only shown to produce a good crop. They also tend to be shown as symbols of scientific superiority which is venerated and admired, an authority which is respected, and sometimes a friend which can be depended upon. The constant absence of other persons except from the user not only implies the ease with which the product is used, but equally significant, it asserts the vital role which the product plays in the farmer's life. All his relationships seem to be mediated by the product and all activities in the farm; even family gatherings, revolve around it.

The prominence of the product image, particularly in farm machinery ads, however, also indicates a tendency to define another aspect of the relationship between the farmer and new farm technologies. As a mediator between farm needs and their fulfillment, farm technologies easily become the more powerful. It is a further way that technology comes to be seen as having a life of its own. This is most obvious in some farm machine ads where through the use of color and other visual effects, a tractor is presented as if it is vested with some kind of power. The person in the ad appears to be merely an appendage of the machine. His role and identity become a function of the product itself. Even emotion as a human quality is seldom expressed by the persons shown in the ads.

The continued emphasis on the product and the tendency to attach symbolic attributes to it suggest the incorporation of the farmer into a sophisticated technological system which agriculture has become today.

But while farm needs are defined in terms of efficiency and positive social and psychological values an important aspect of farm production as an activity which produces goods to sustain the high consumption lifestyle is ignored. This aspect concerns the environmental impact of new farm innovations. There is very little reference to the conservation of the natural properties of the soil in farm machinery ads and caution for possible health hazards is seldom directly stated in farm chemical ads. The portrayal of farm scenes filled with pleasing imageries channels the association of what "would be" as a consequence of product use, e.g., good crop, or weed-free fields. The concern to make the land productive is further illustrated by the common presentation of the farm as being worked on by the machine.

The connection between the use of new farm technologies and their contribution to environmental damage is redefined in agricultural advertising where the farm becomes a less vital component in our subsistence than a "setting" for high technology. This is where the ambiguity of farm needs and their fulfillment comes from.

How then is the farmer's world represented in agricultural advertising? In summary, it is a world of efficiency and high productivity centrally dependent on the latest and more

sophisticated farm technologies. It is a world where the solitary farmer is subordinated to complex and powerful technologies. It is a world where harmful environmental consequences are not existent. But for all its sophistication, it remains a world of work, of deferred satisfaction where the stern sense of power over nature predominates over the kind of pleasure which consumer goods advertising attaches to the consumption of final consumer goods.

Conclusion

There are two major trends in agricultural advertising which this study is able to point out. One is the consistently limited range of cultural values and other symbolic attributes utilized in farm ads. Although this observation might not be able to withstand most statistical measures for significance due to the limited amount of samples used in this level of analysis, it is still a logical indication of how technological products like farm machine and farm chemicals are defined in the ads. What is further illustrated here is the importance of market segmentation in determining the representations of the relationship between people and commodities. With the product and the actual activities in which it is being used as the determining factors for image production, agricultural ads however, also show tendencies to play with more "frivolous" associations commonly found in consumer goods ads. They also

essentially present lifestyle images which are characterized by farm work and the product associated with it. Farm needs according to these images are primarily that of production efficiency. It is the way in which agricultural ads present efficiency as the main objective of farming and modern farm technologies as the only means to attain it that provides the ground for criticism.

Another observation made in this study deals with the role that the text plays in conveying the symbolic aspects of the product. Unlike in most consumer goods ads, the text in farm ads remained a significant carrier of meaning. The text and the image duplicate or explain each other. Again this indicates the distinct way in which the advertisers address the farmers as a specific market segment whose concern for efficiency is recognized to require a more careful assessment of the product.

The continuing emphasis on the text in farm ads also has an implication on the type of protocol used in this study. Perhaps a more detailed list of categories should be included in the part of the protocol dealing with textual themes and emphasis so that all the kinds of information given are taken into account. Furthermore, the analysis of the text should probably include a more rigorous method of examining how things are being said to give a clearer indication of how rational the arguments presented are. There is some truth to agricultural advertiser's claim that they present more informative ads (as compared to most contemporary consumer goods ads); this presents a need for

a method of analysis which determines the relevance of the information content.

Apart for the need for more intensive textual analysis suggested earlier, the adoption of a coding protocol used in analyzing consumer goods ads to this study of producer goods ads, did not present any constraints in terms of what this study aims to illustrate.

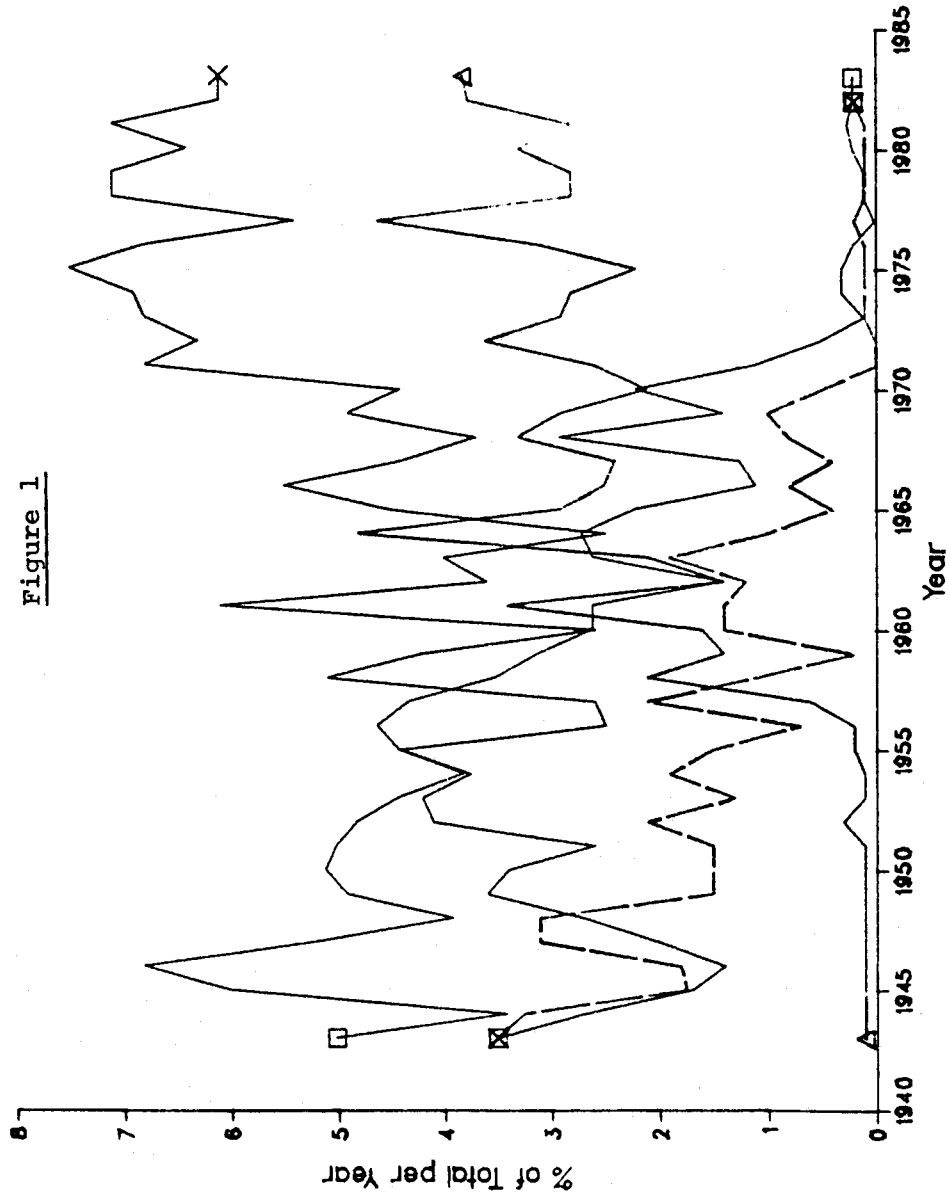
Notes

1. Kline and Leiss, "Images of Well-Being," p. 20.
2. Ibid., p. 21
3. Ibid., 27.
4. Ibid., p. 21.
5. Ibid., p. 30

APPENDIX A

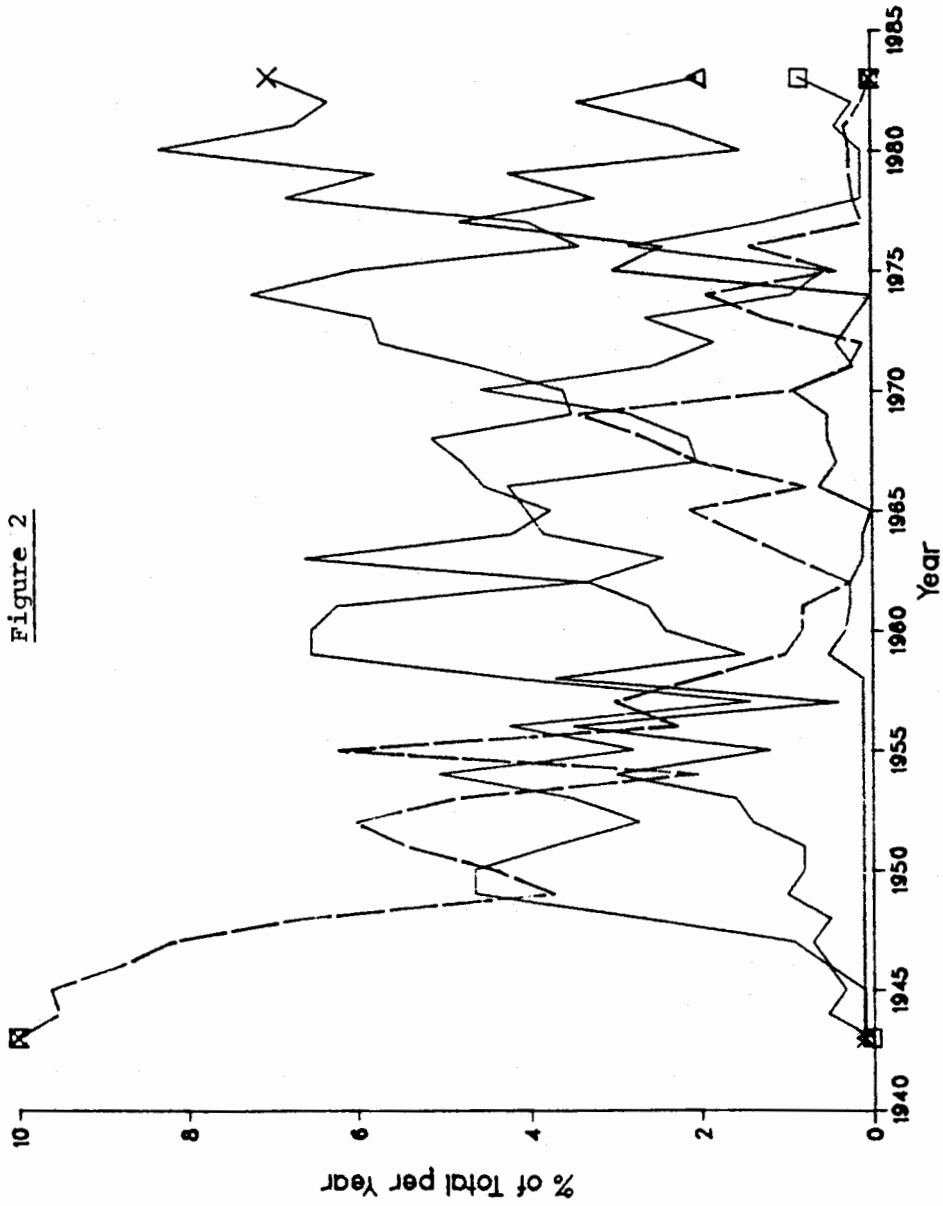
<u>Year</u>	<u>Number of ads analyzed</u>		<u>Total</u>
	<u>Chemical</u> (Total for spring)	<u>Machinery</u> sample size	
1943	(22)3	(14)2	(36)5
1944	(43)4	(20)2	(63)6
1945	(30)3	(25)3	(55)6
1946	(36)4	(32)3	(68)7
1947	(36)3	(37)4	(73)7
1948	(36)4	(62)6	(98)10
1949	(35)4	(51)5	(86)9
1950	(37)4	(64)6	(101)10
1951	(37)4	(50)5	(87)9
1952	(15)2	(64)6	(79)8
1953	(14)1	(60)6	(74)7
1954	(20)2	(64)6	(84)8
1955	(29)3	(48)5	(77)8
1956	(15)1	(48)5	(63)6
1957	(22)2	(56)6	(78)8
1958	(24)2	(37)4	(61)6
1959	(18)2	(48)5	(66)7
1960	(17)2	(45)4	(62)6
1961	(36)3	(32)3	(58)6
1962	(26)3	(34)3	(60)6
1963	(20)2	(38)4	(58)6
1964	(22)2	(42)4	(64)6
1965	(31)3	(28)3	(59)6
1966	(37)4	(45)4	(82)8
1967	(49)5	(43)4	(92)9
1968	(60)6	(56)6	(116)12
1969	(57)6	(59)6	(116)12
1970	(9)1	(50)5	(59)6
1971	(40)4	(27)3	(67)7
1972	(49)5	(37)4	(86)9
1973	(56)6	(34)3	(90)9
1974	(20)2	(27)3	(47)5
1975	(23)3	(32)3	(55)6
1976	(23)2	(42)4	(65)6
1977	(13)2	(41)3	(54)5
1978	(27)3	(39)4	(66)7
1979	(45)5	(34)3	(81)8
1980	(76)8	(49)5	(125)13
1981	(84)8	(42)5	(126)13
1982	(93)9	(47)5	(140)14
1983	(105)10	(29)3	(134)13

Figure 1



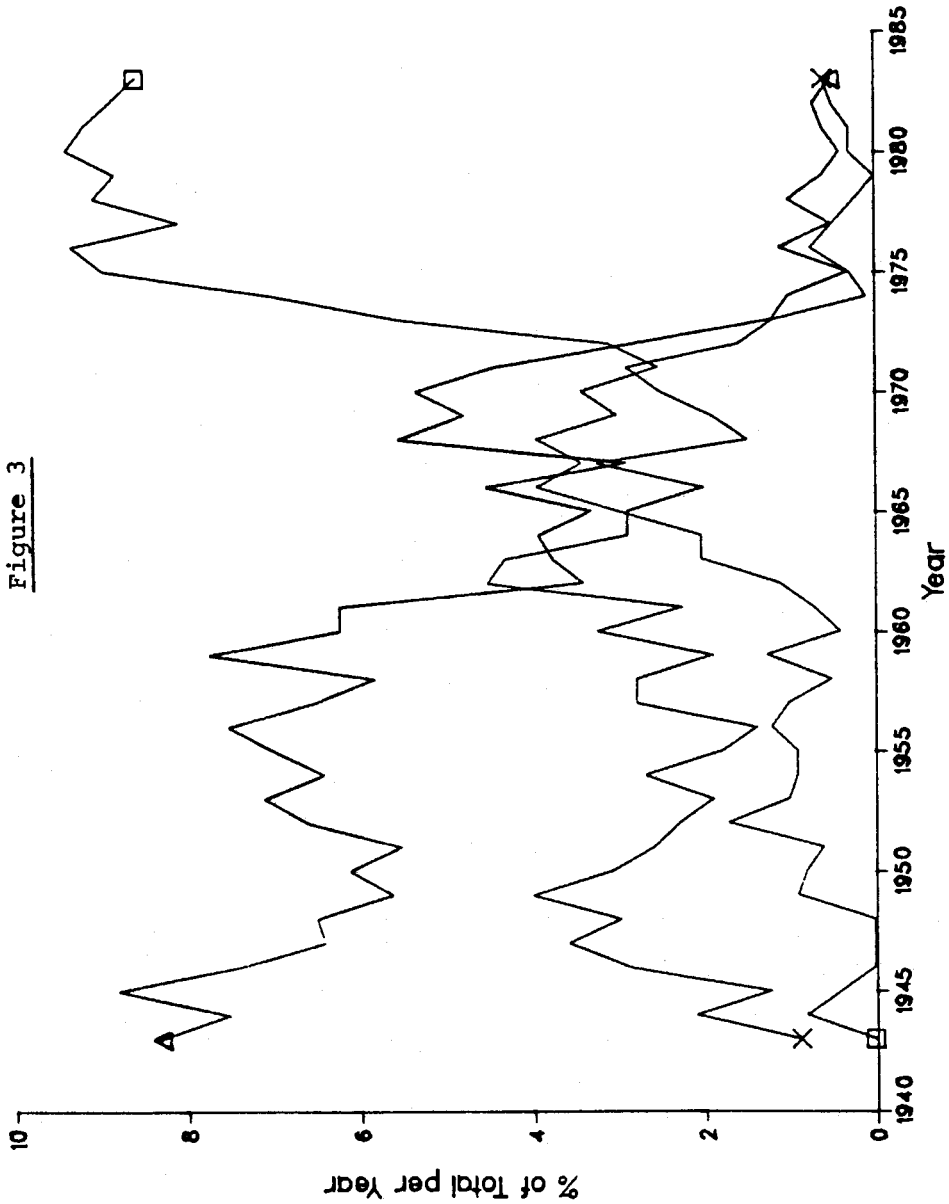
Size of Ads (farm machinery)

Figure 2



Size of Ads (farm chemicals)

Figure 3



Legend
▲ Black & White
× Black & White & Aperture Color
□ Full Color

Colour of Ad (farm machinery)

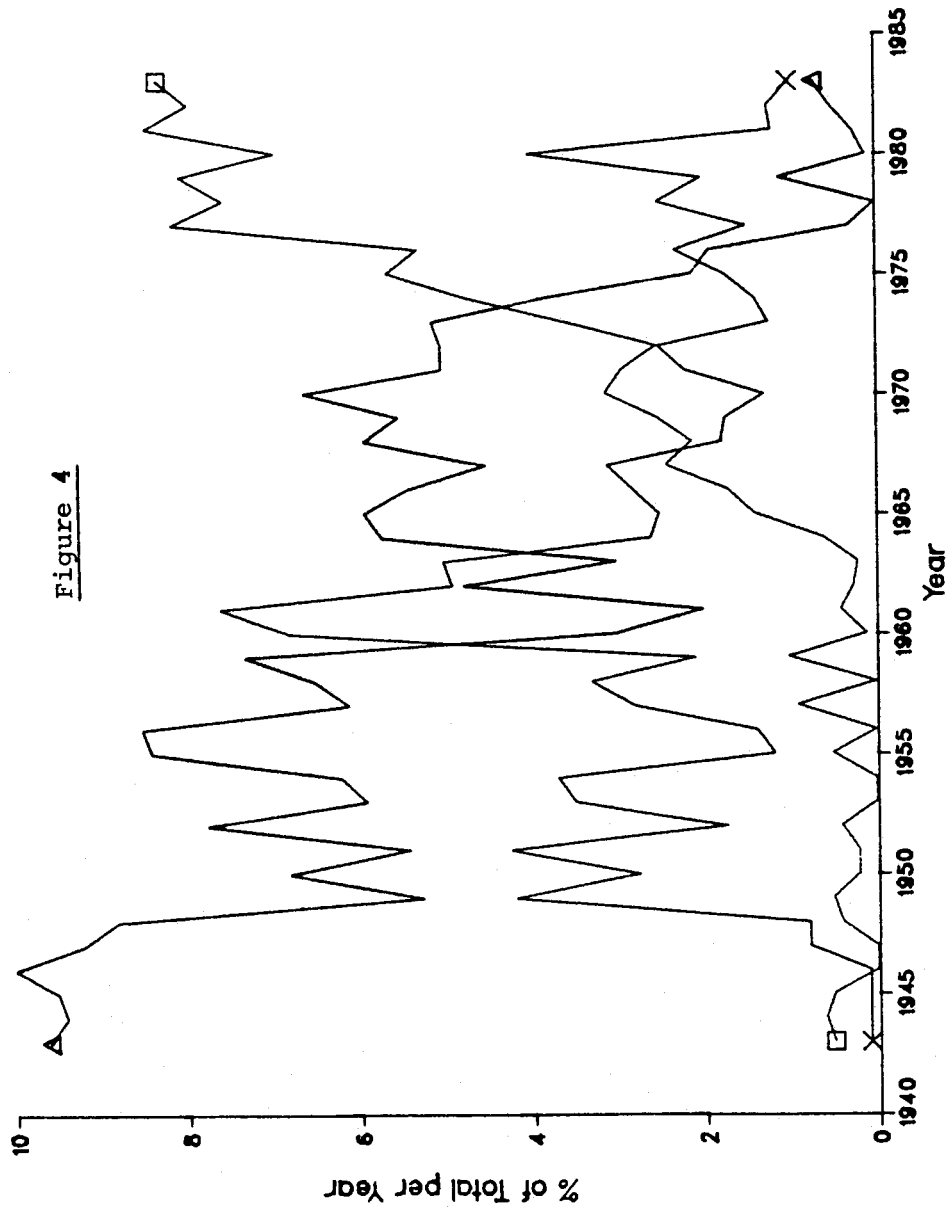


Figure 4

Legend
 ▲ White & Yellow
 X White & Yellow & Another Color
 □ All Other

Colour of Ad (farm chemicals)

Figure 5

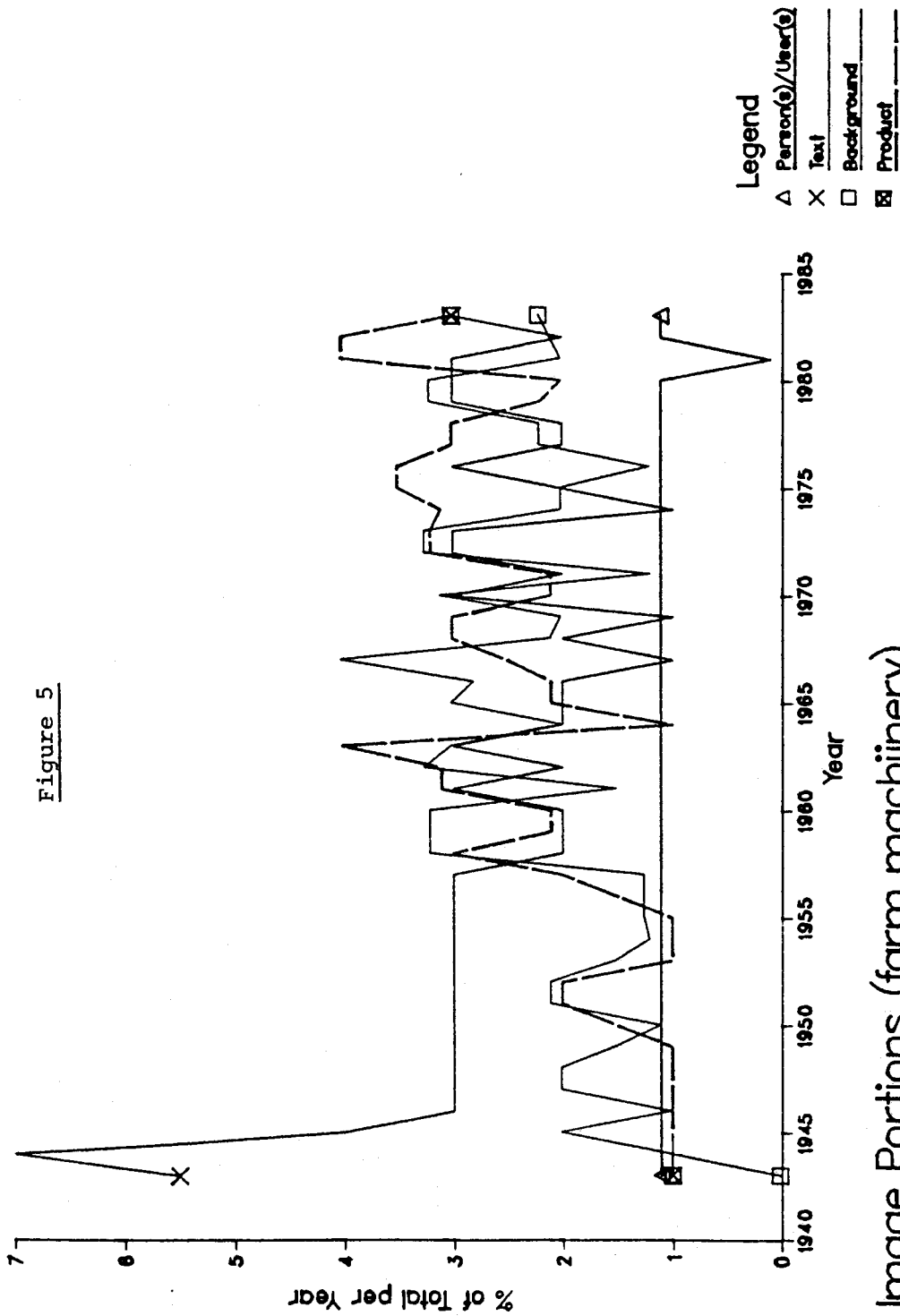


Image Portions (farm machinery)
(highest frequency in terms of % of ad space occupied)

Figure 6

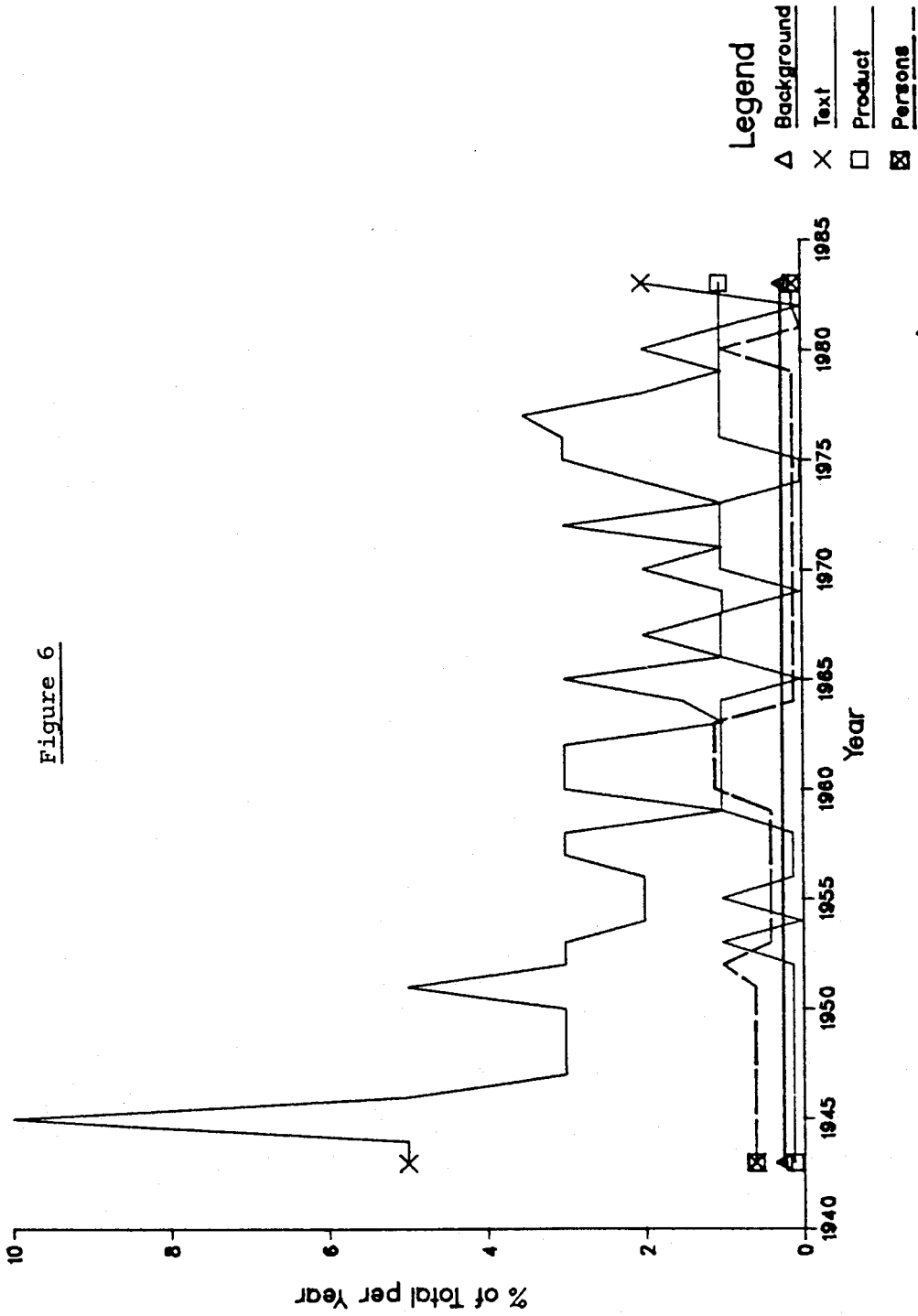


Image Portion (farm chemicals)

Figure 7

indicates the increasing amounts of ads with increasing portions devoted to background representation

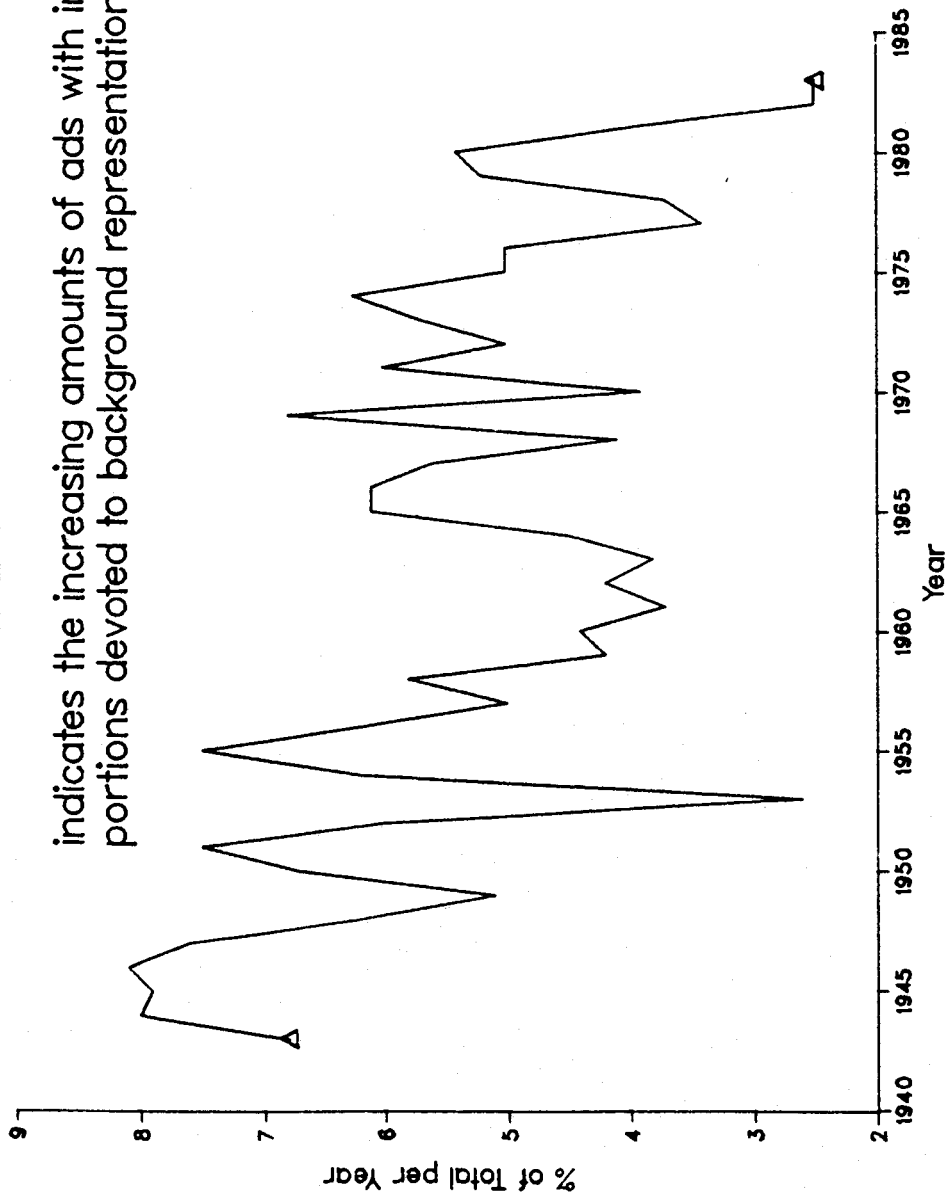


Image Portion Devoted to Representation
of Background(chemicals)

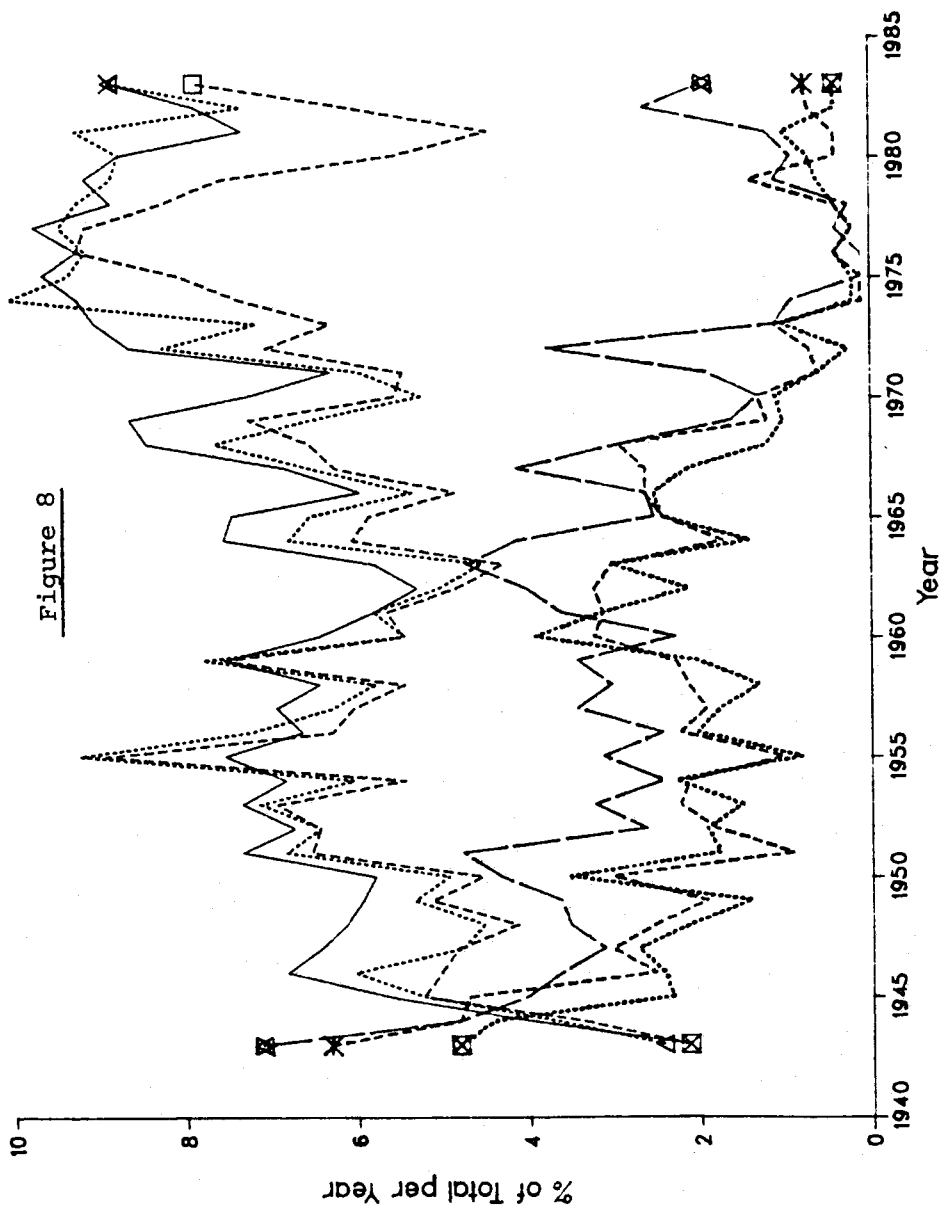


Figure 8

Image Mode (farm machinery)

Figure 9

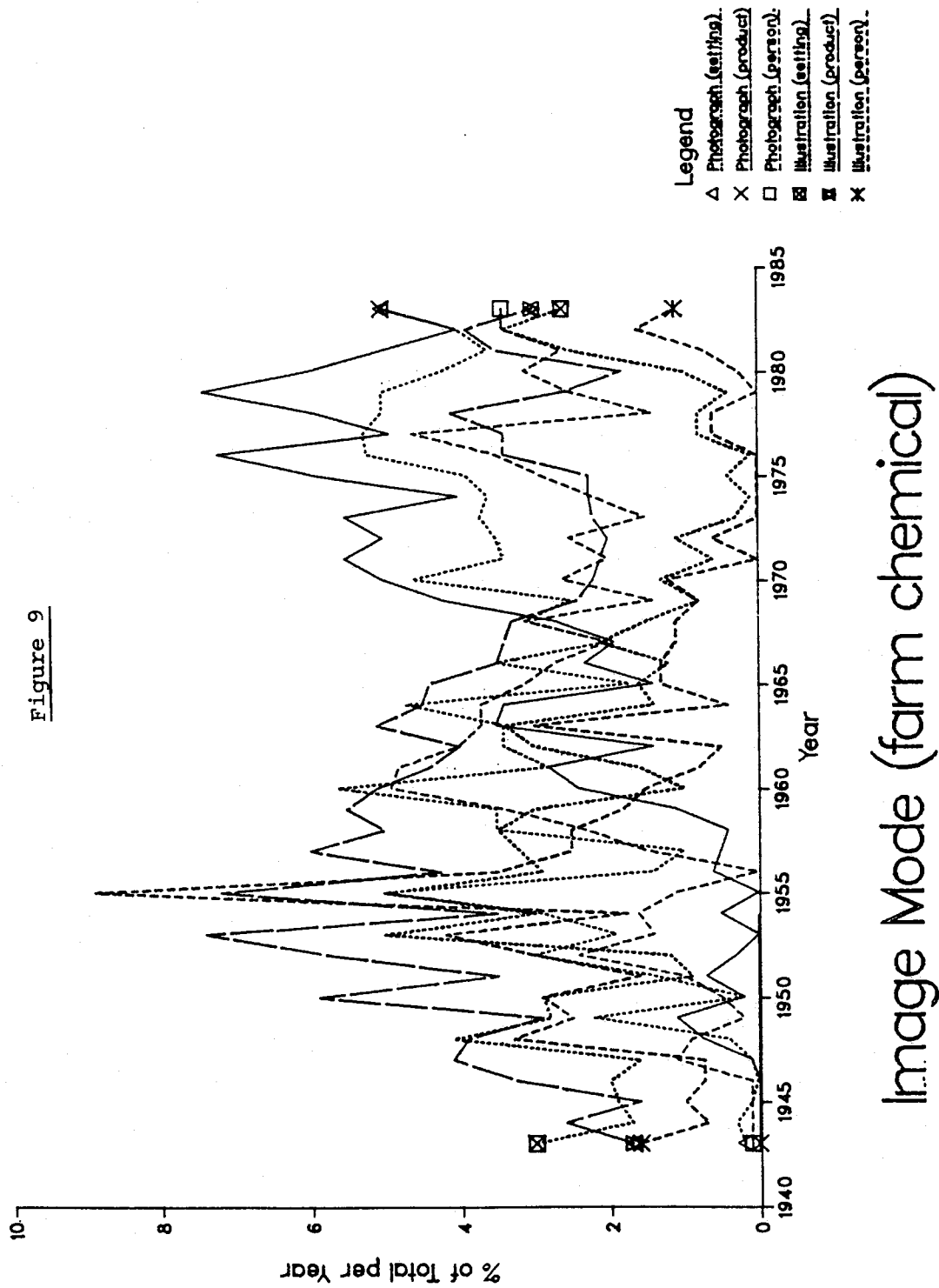
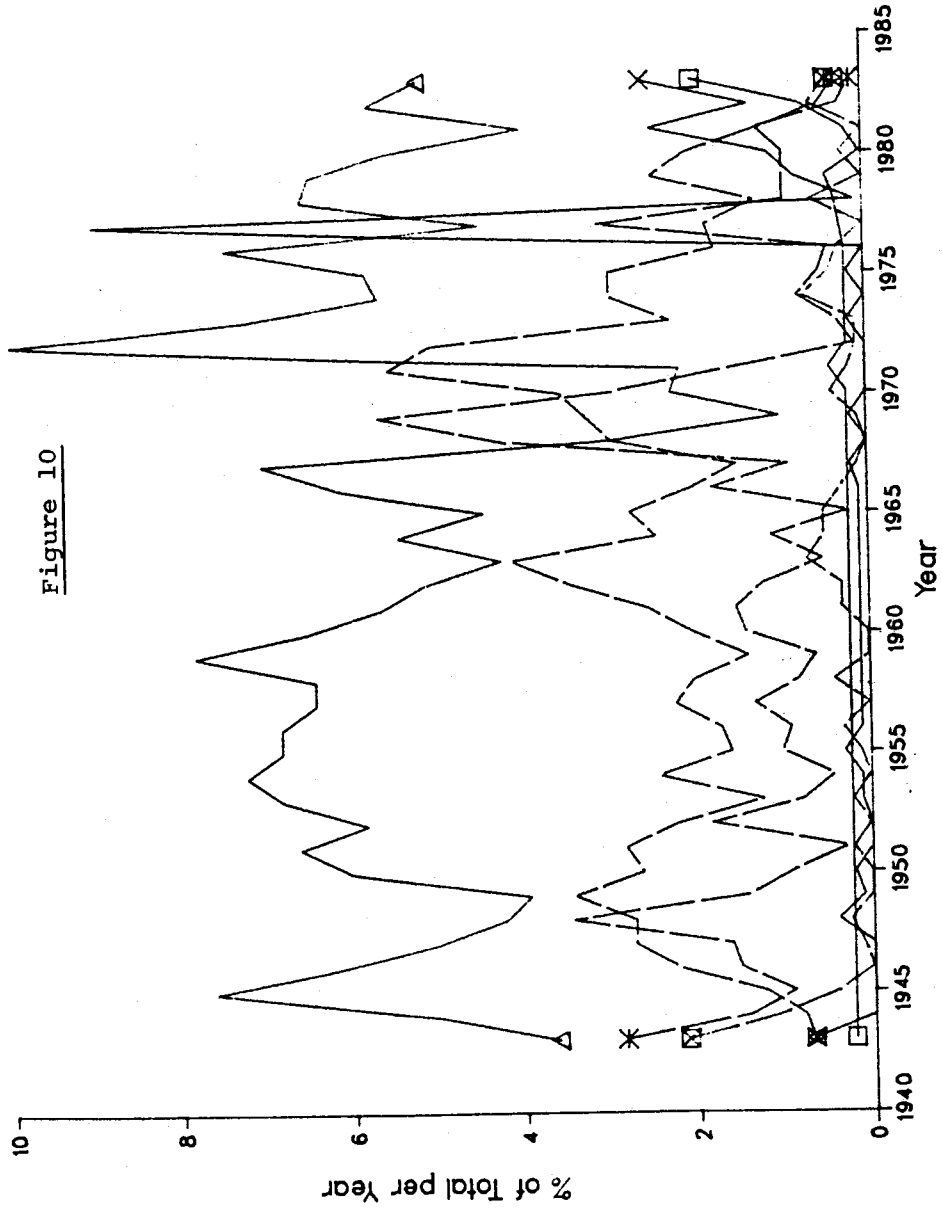


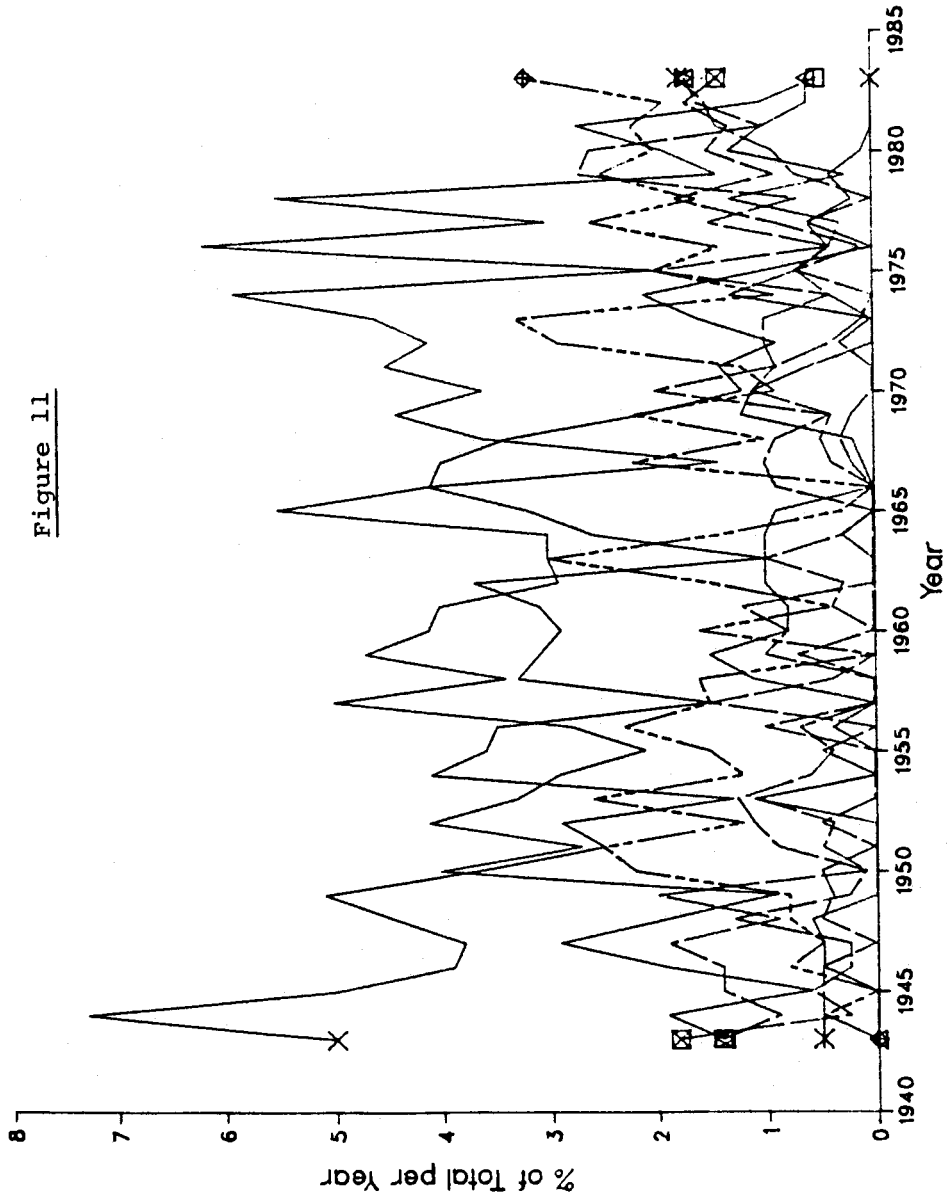
Image Mode (farm chemical)

Figure 10



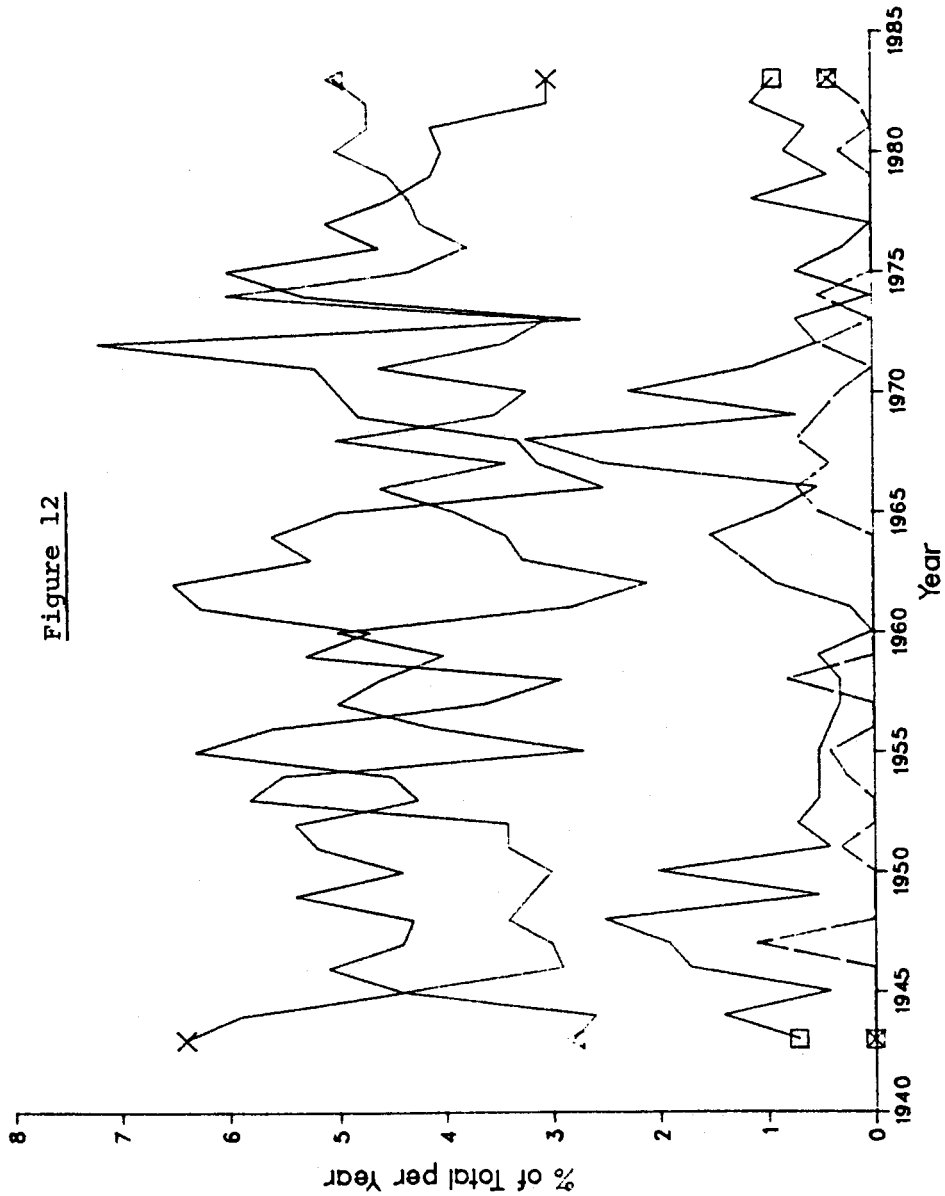
Product Image (farm machinery)

Figure 11



Product Image (farm chemicals)

Figure 12



Legend
△ 100-250 Words
X More Than 250 Words
□ 50-100 Words
▣ 20-50 Words

Word Count (farm machinery)

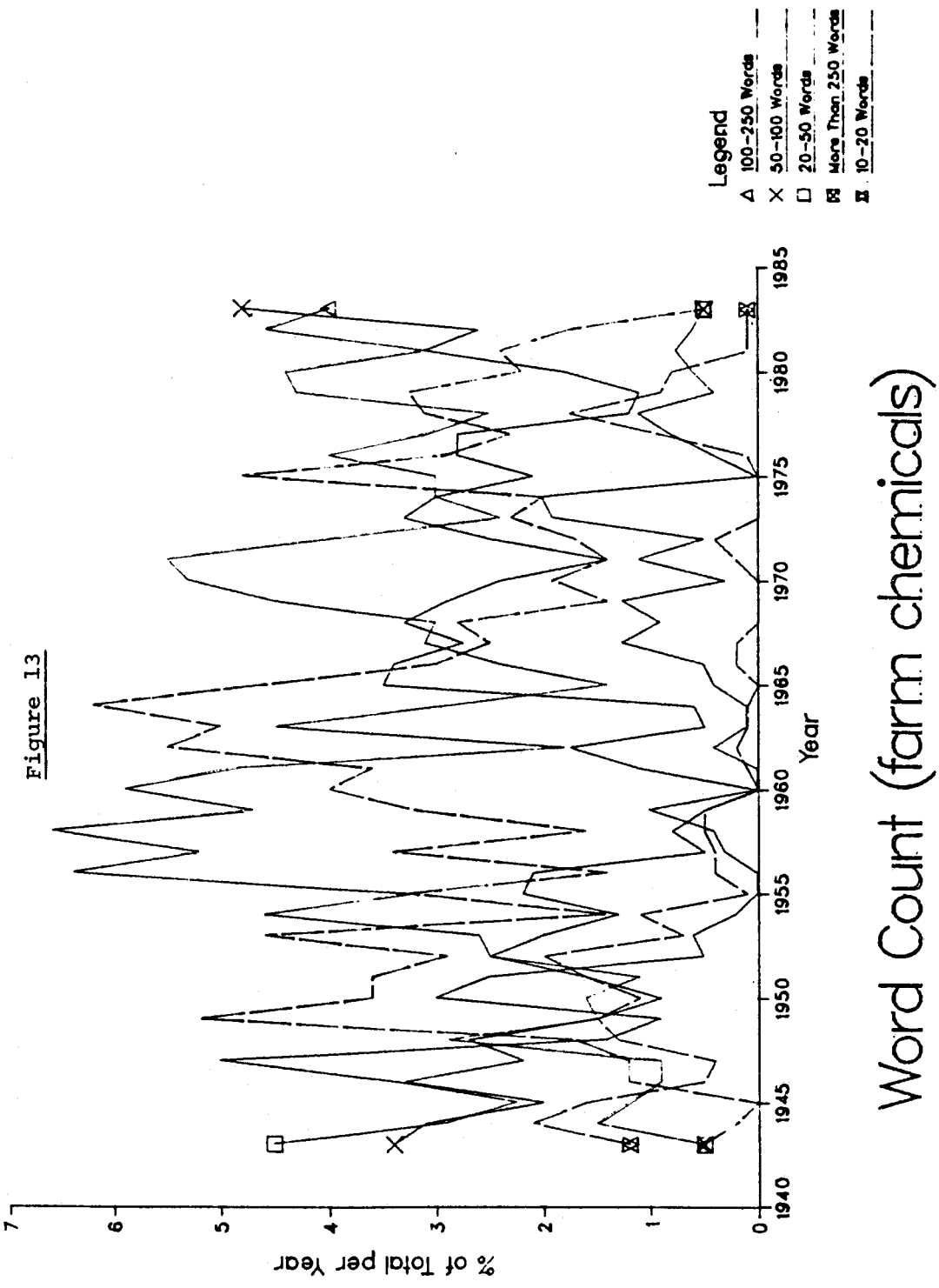
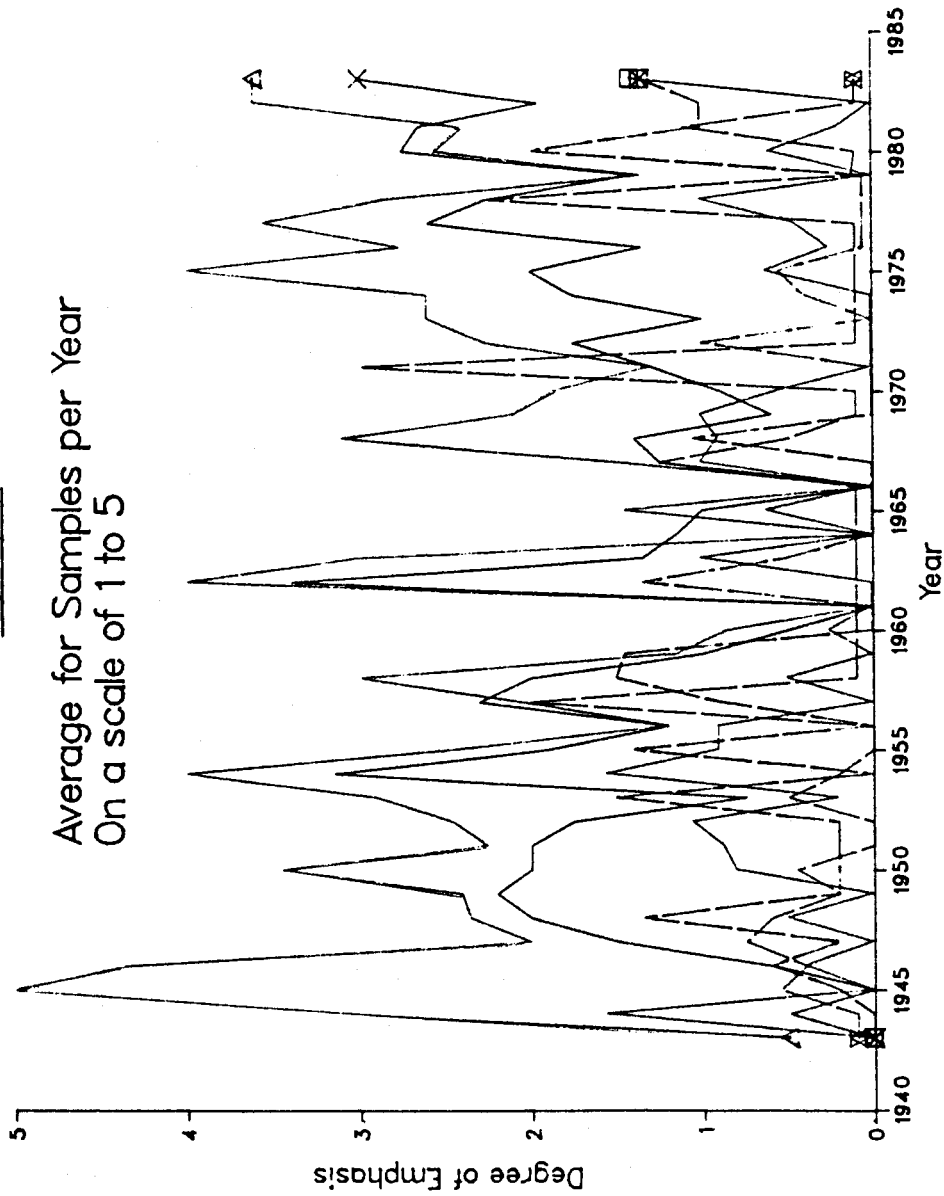


Figure 13

Word Count (farm chemicals)

Figure 14

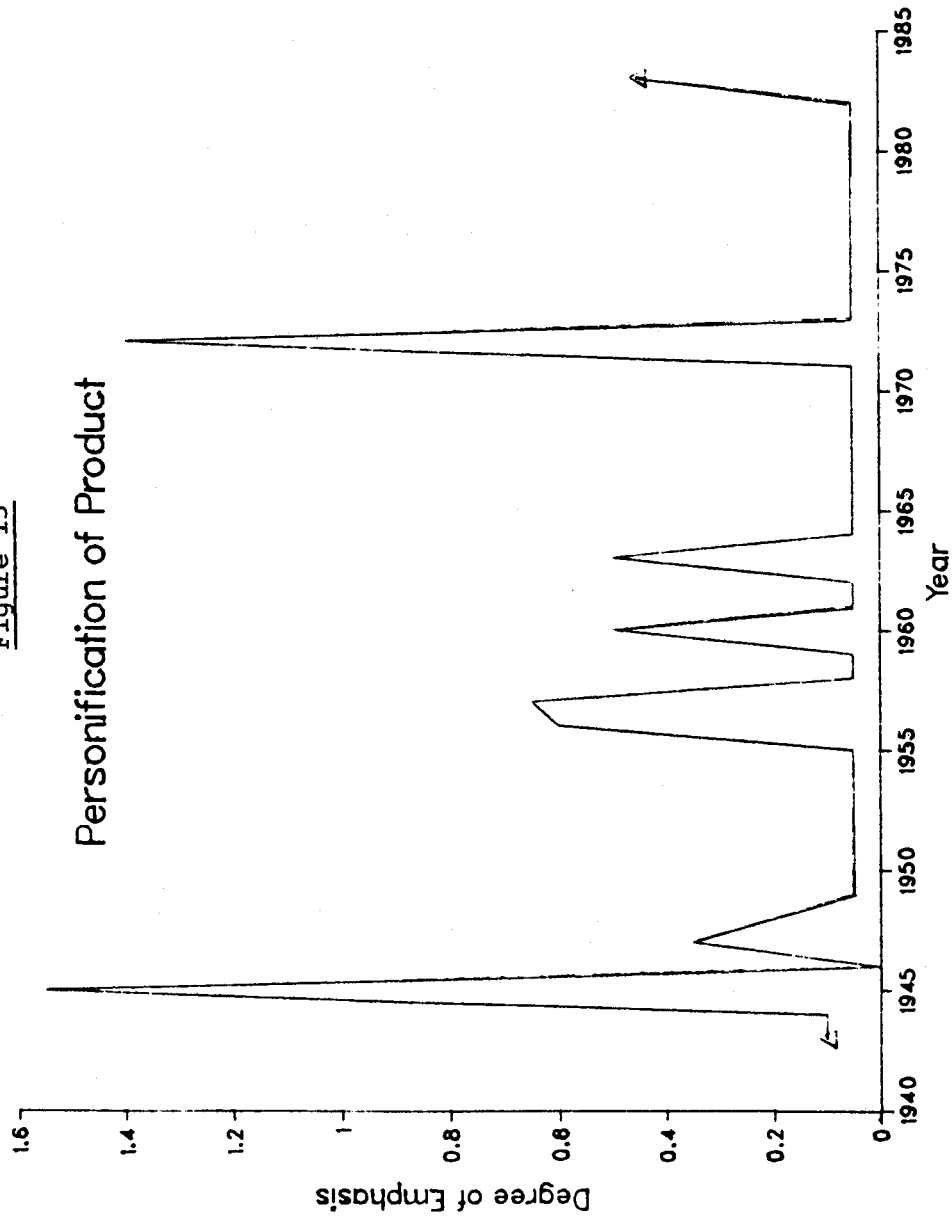
Average for Samples per Year
On a scale of 1 to 5



Legend
▲ Research, Extension, Educ.
× Instruction, Ext. Serv.
□ Research & Extension, Assoc. of Extension Educ.
■ Assoc. of Ext. Councils of Extension Educ.
● Extension

Text Themes and Emphasis (farm machinery)

Figure 15



Text Themes and Emphasis (farm machinery)

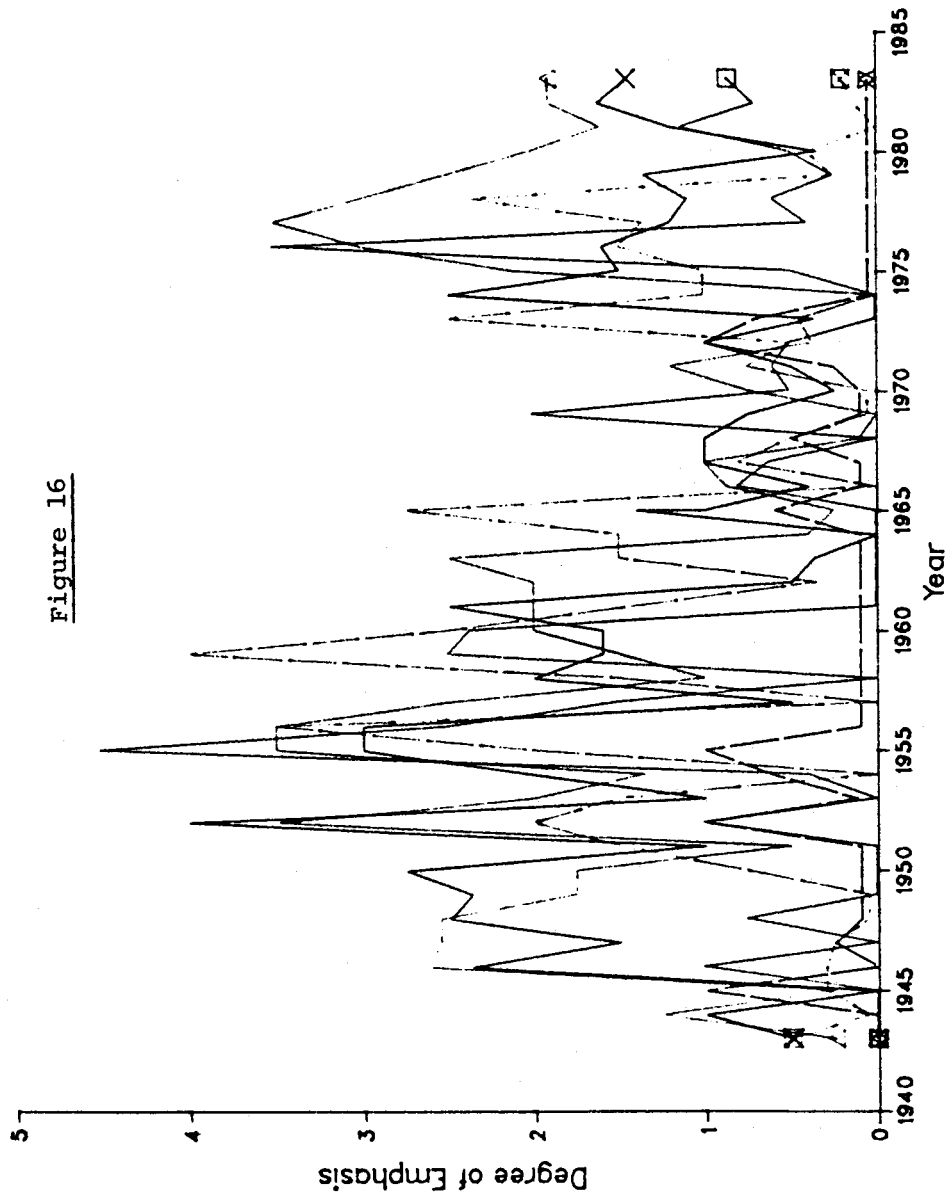
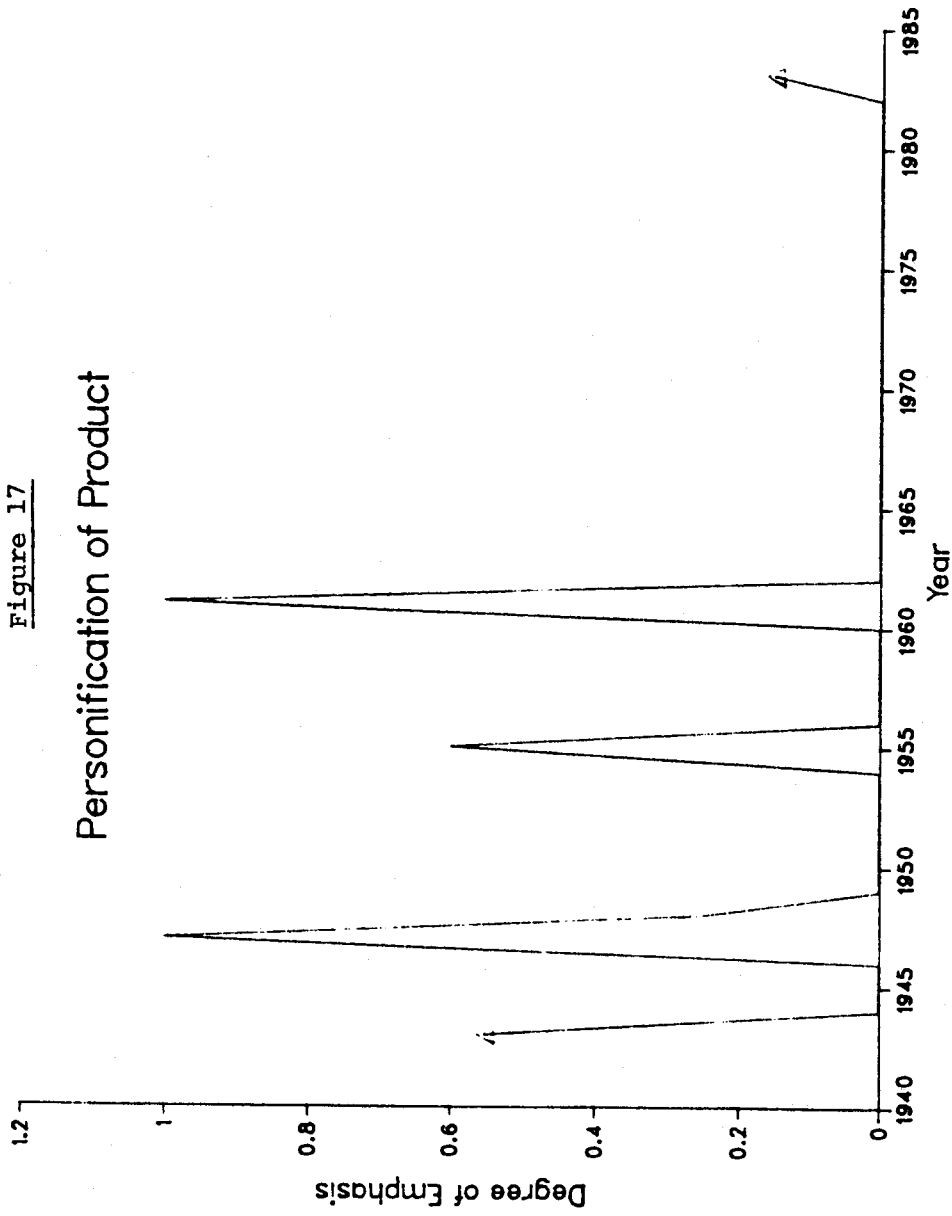


Figure 16

Text Themes and Emphasis (farm chemicals)

Figure 17

Personification of Product



Text Themes and Emphasis (farm chemicals)

Figure 18

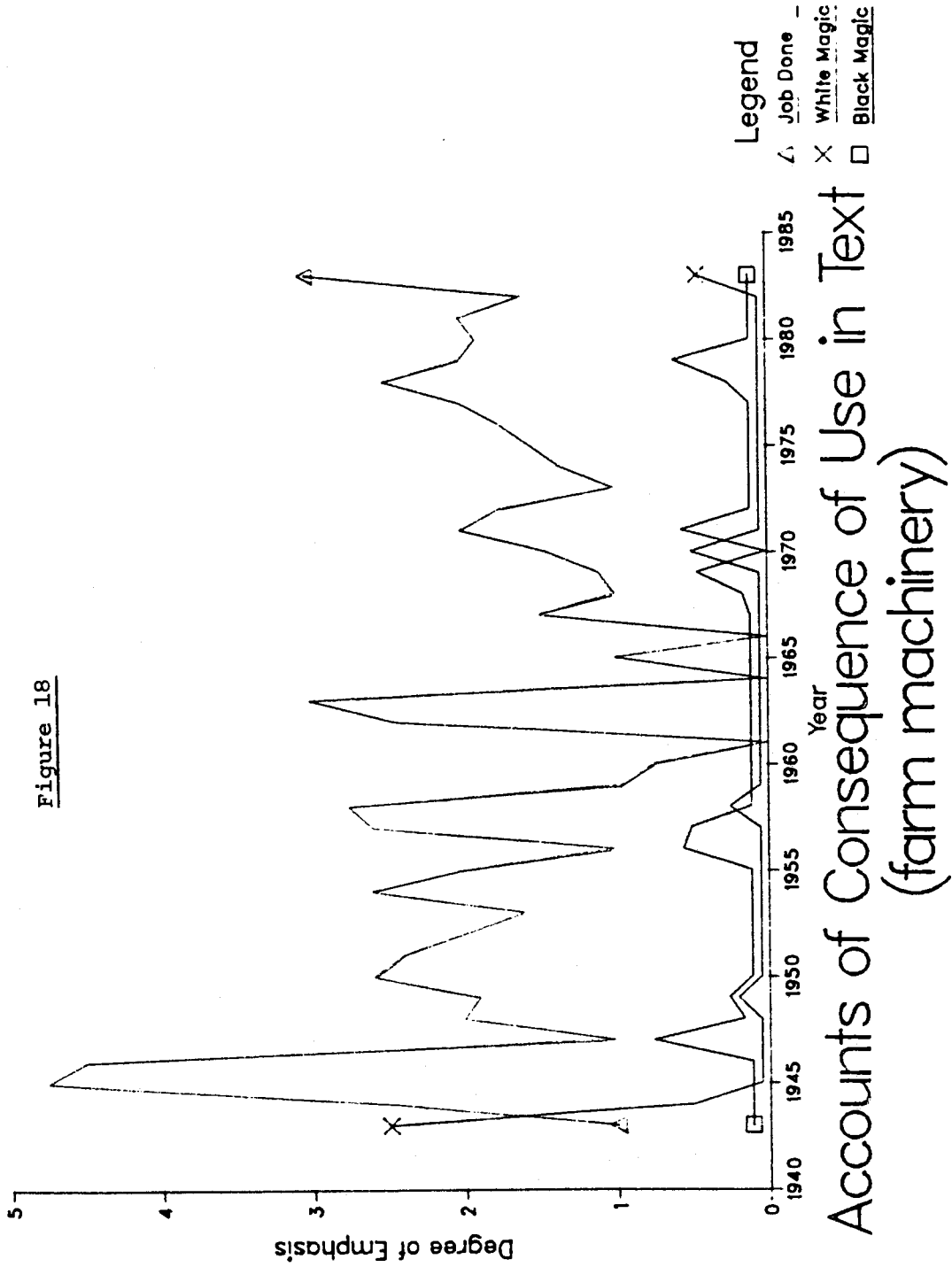


Figure 19

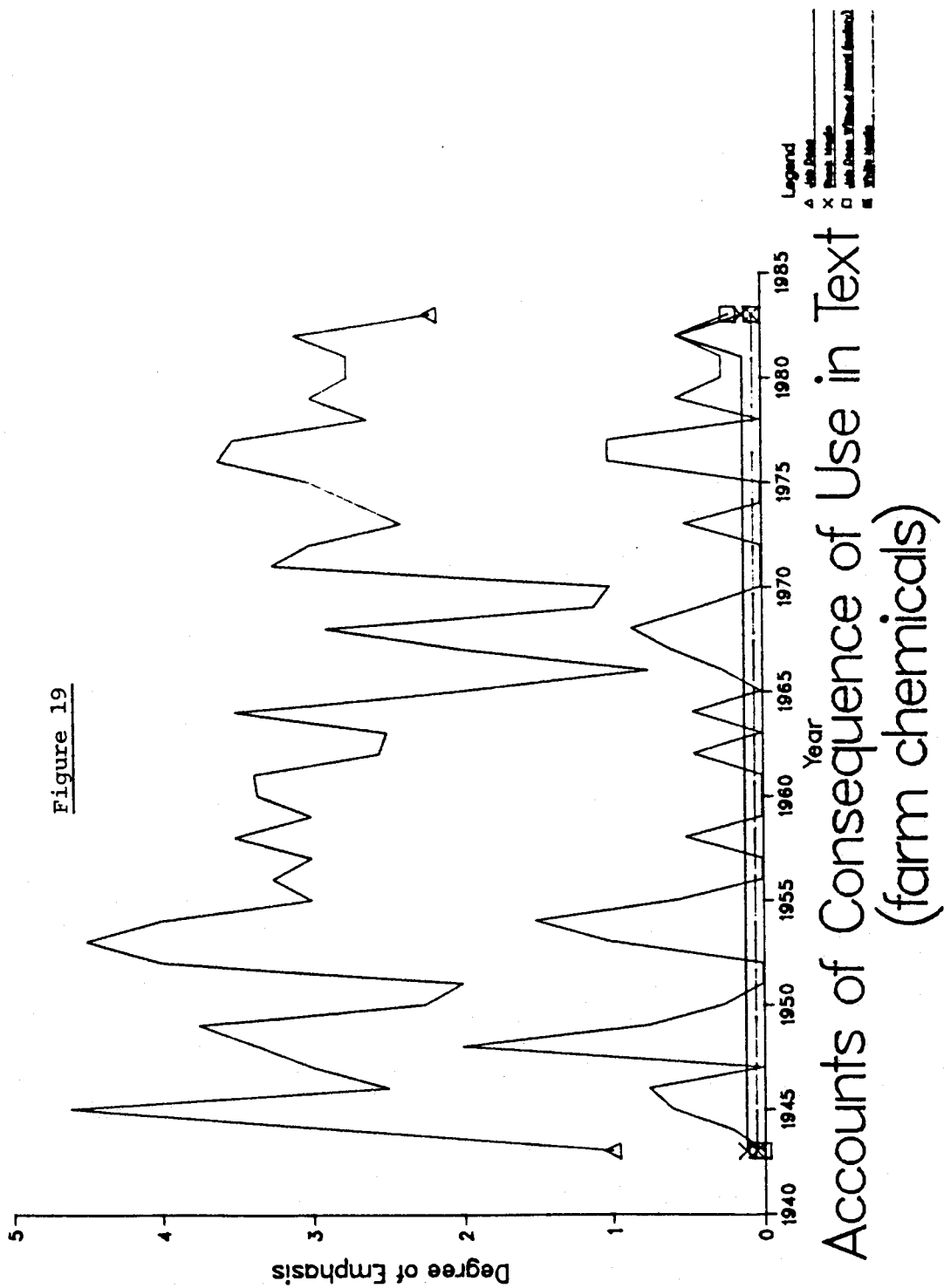
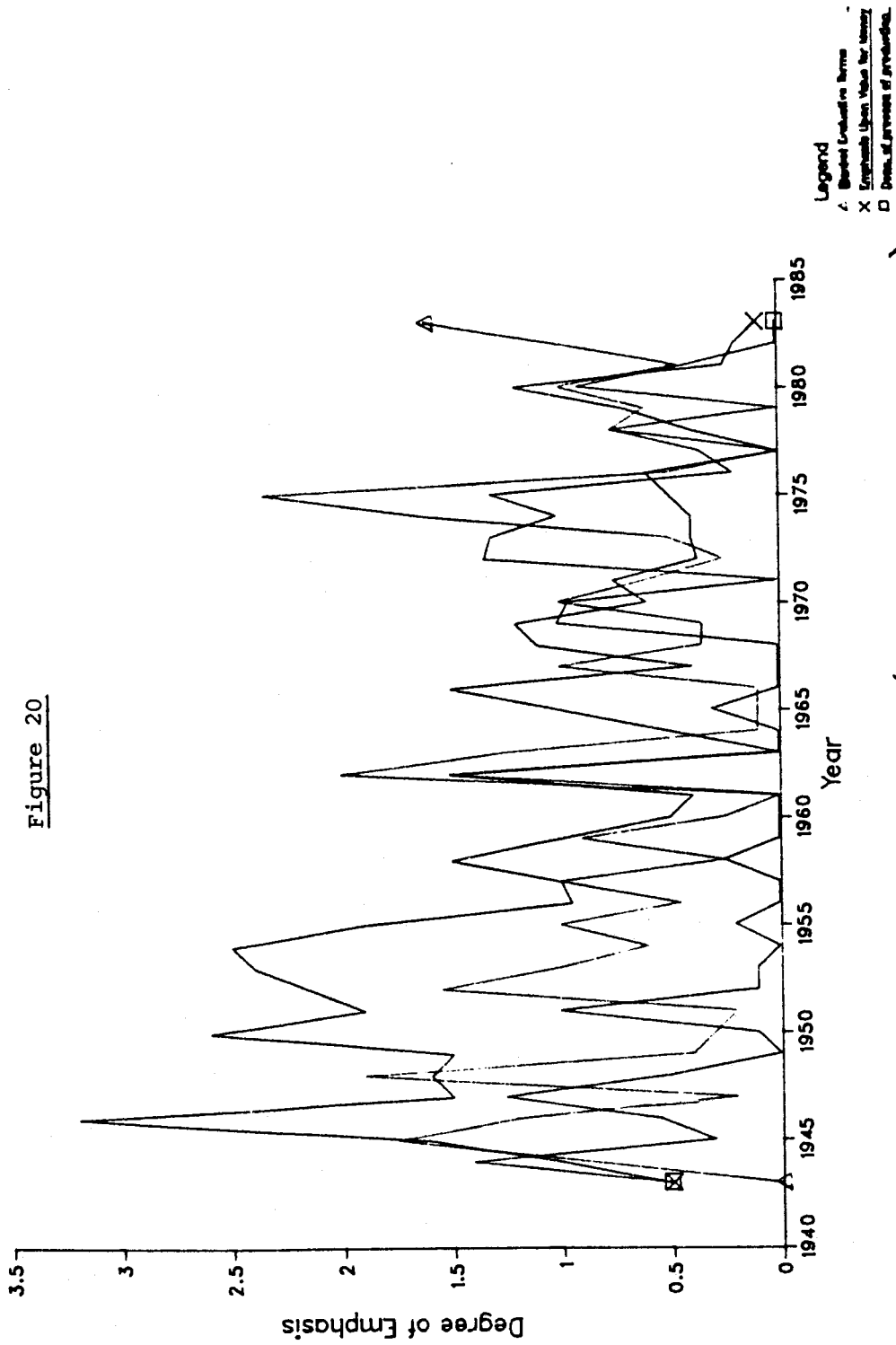
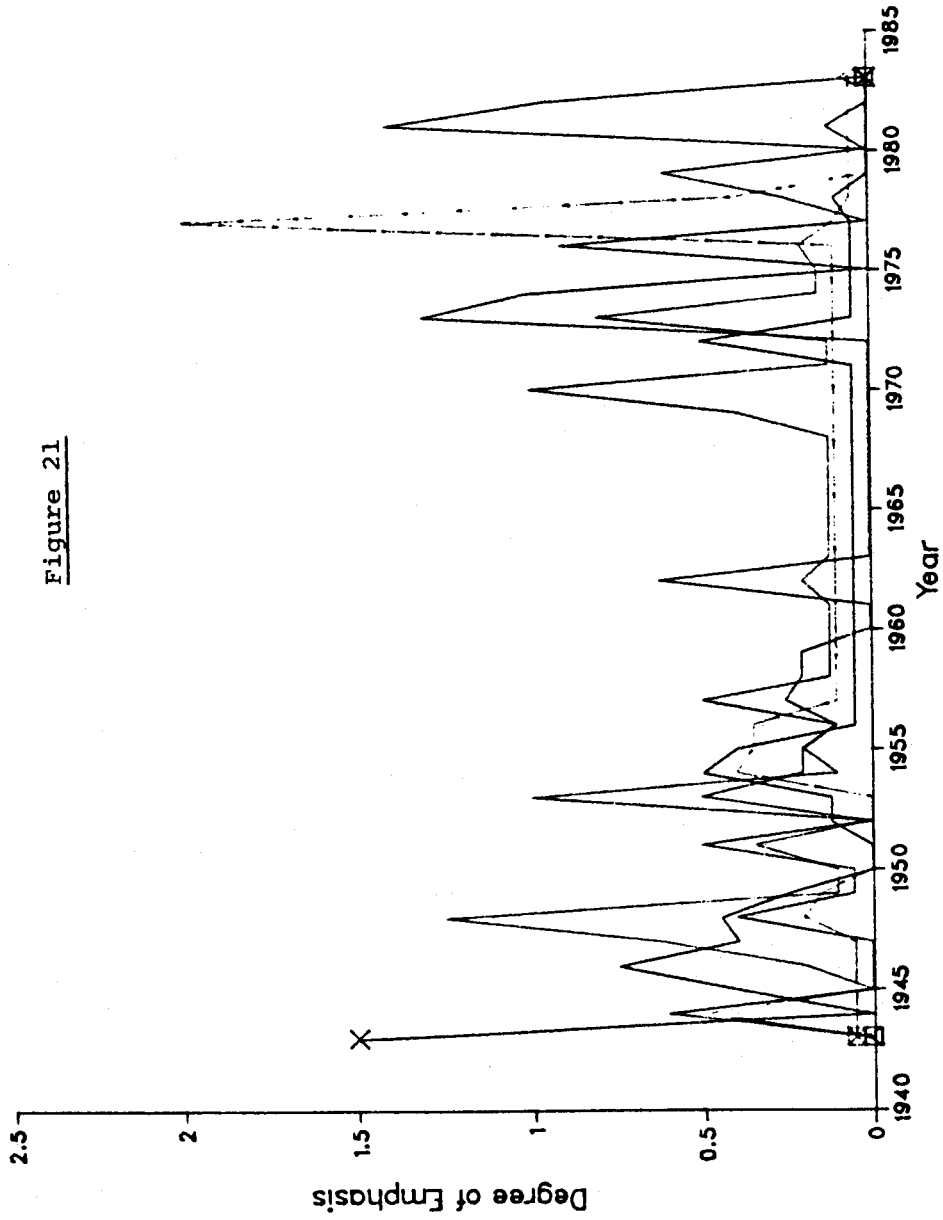


Figure 20



Other Textual Themes (farm machinery)

Figure 21



Legend
A. Amount of Machinery Produced in the U.S.
B. Amount of Machinery Imported
C. Amount of Machinery Exported
D. Total Amount of Machinery Produced in the World

Other Textual Themes (farm machinery)

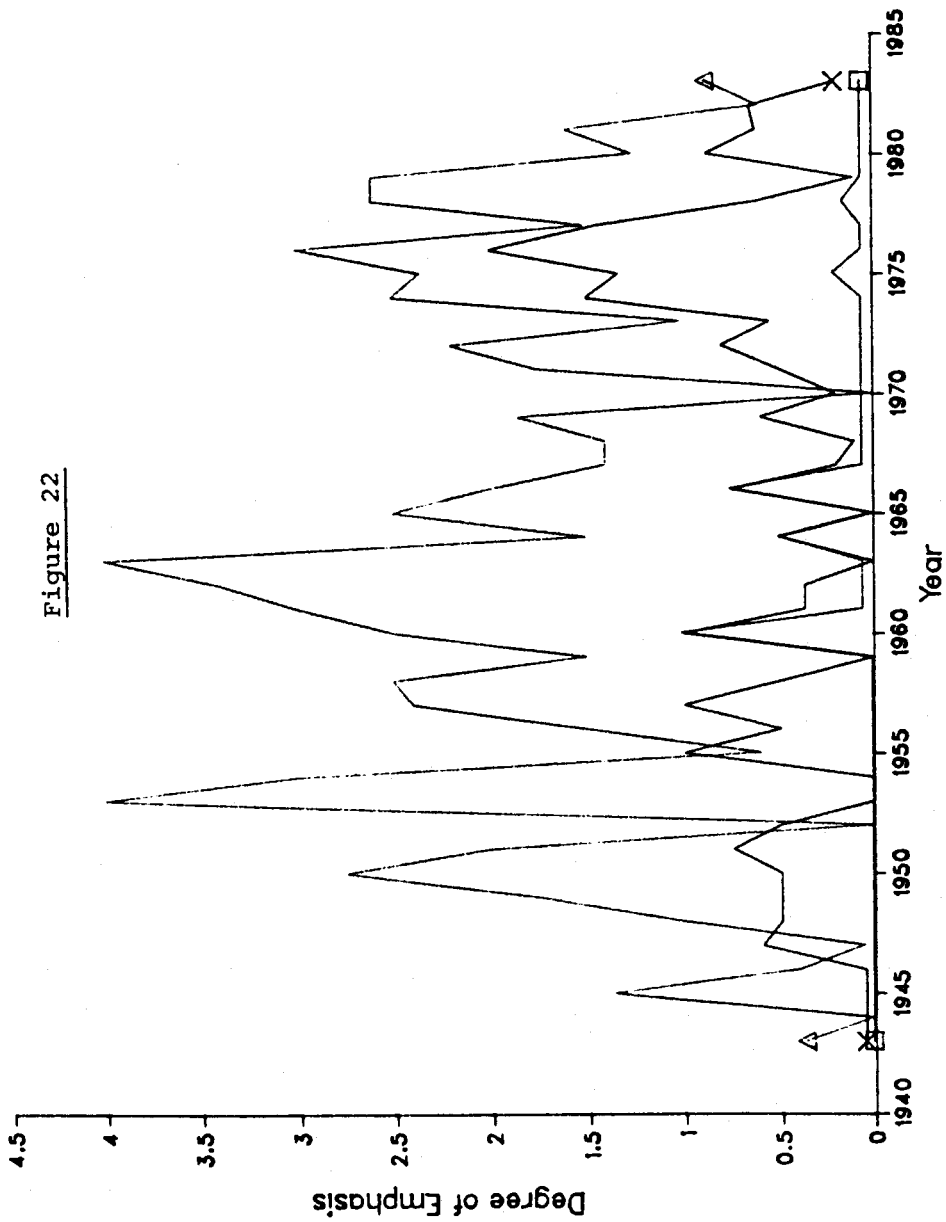


Figure 22

Other Textual Themes (farm chemicals)

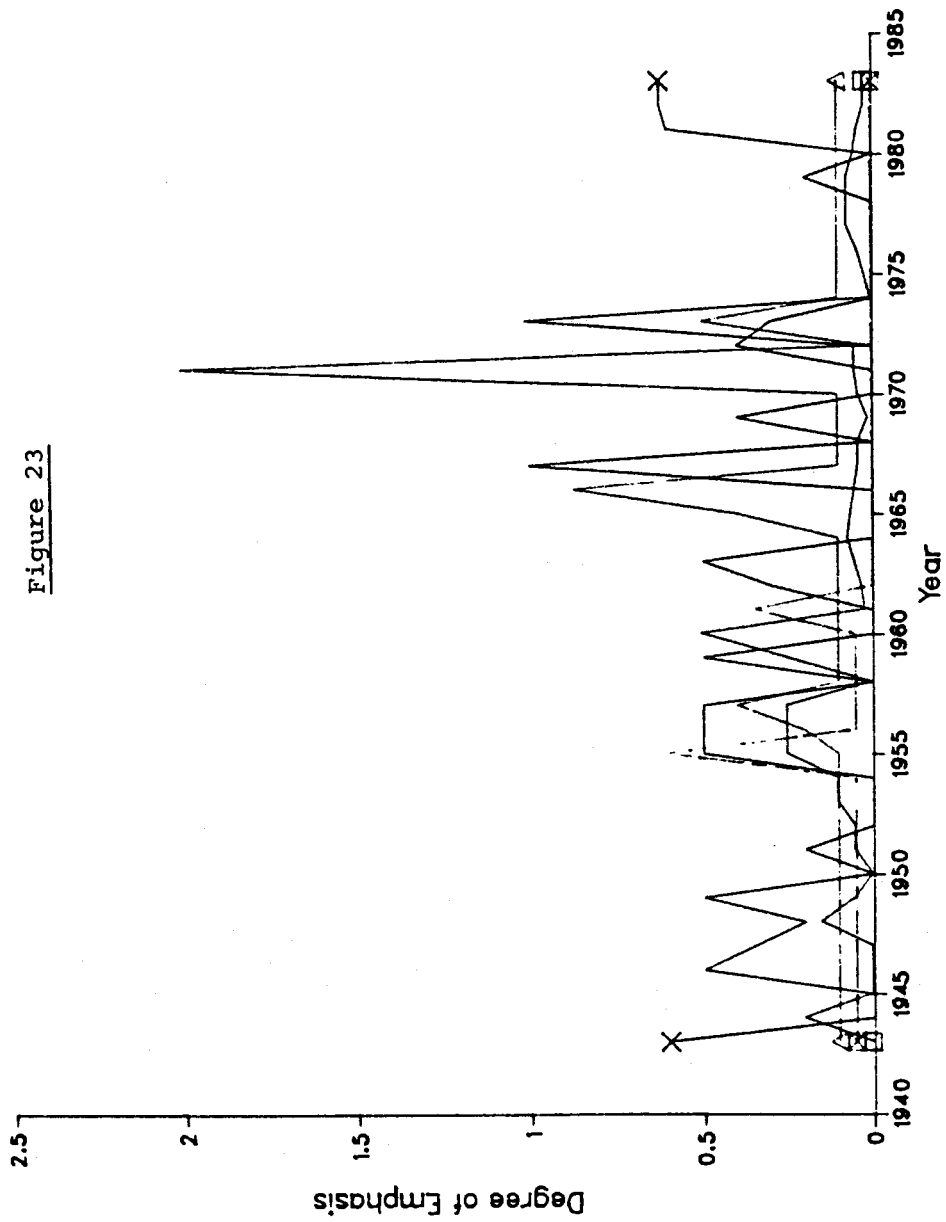
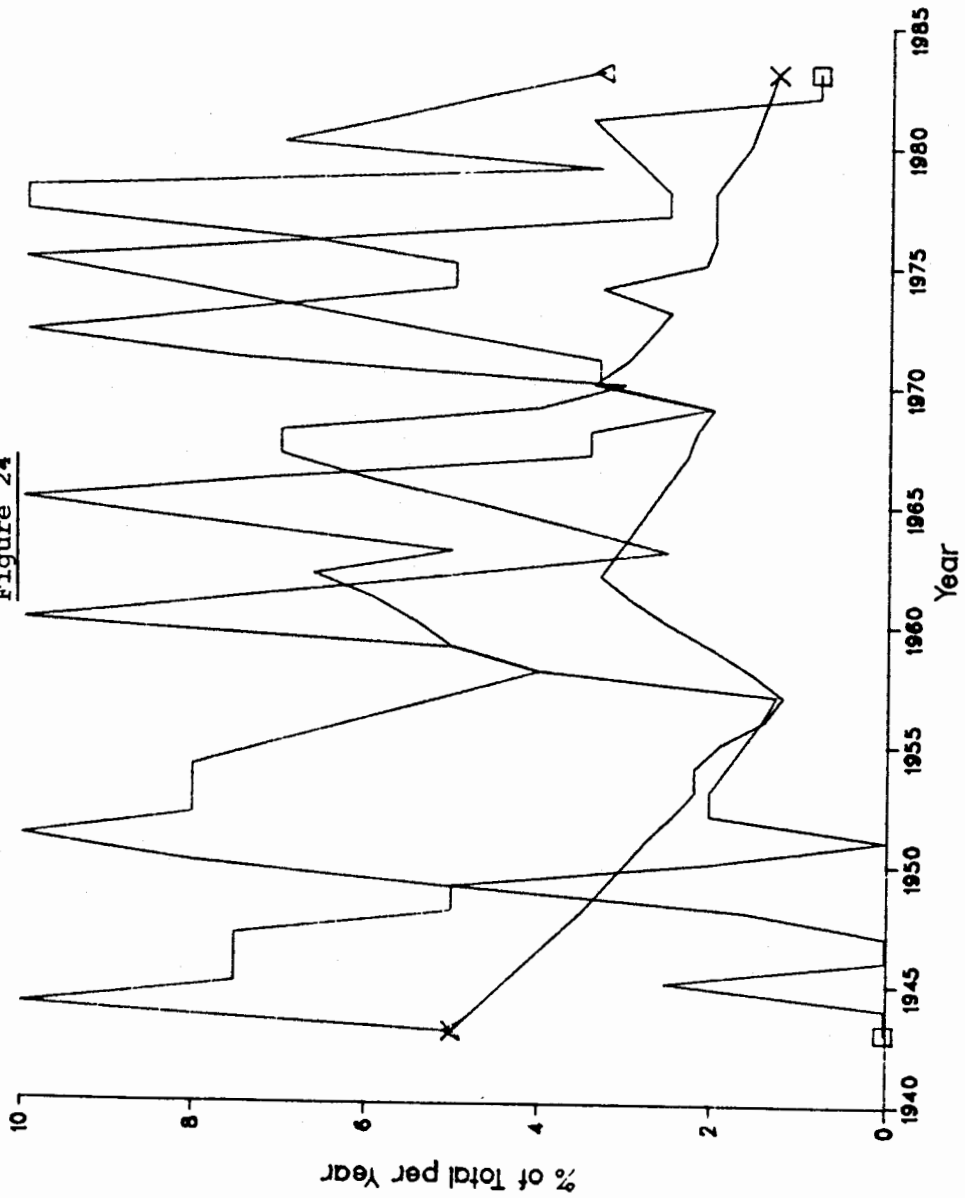


Figure 23

Other Textual Themes (farm chemicals)

Legend
 ▲ Other Textual Themes (farm chemicals)
 × Other Textual Themes (pesticides)
 □ Other Textual Themes (herbicides)
 ○ Other Textual Themes (fertilizers)

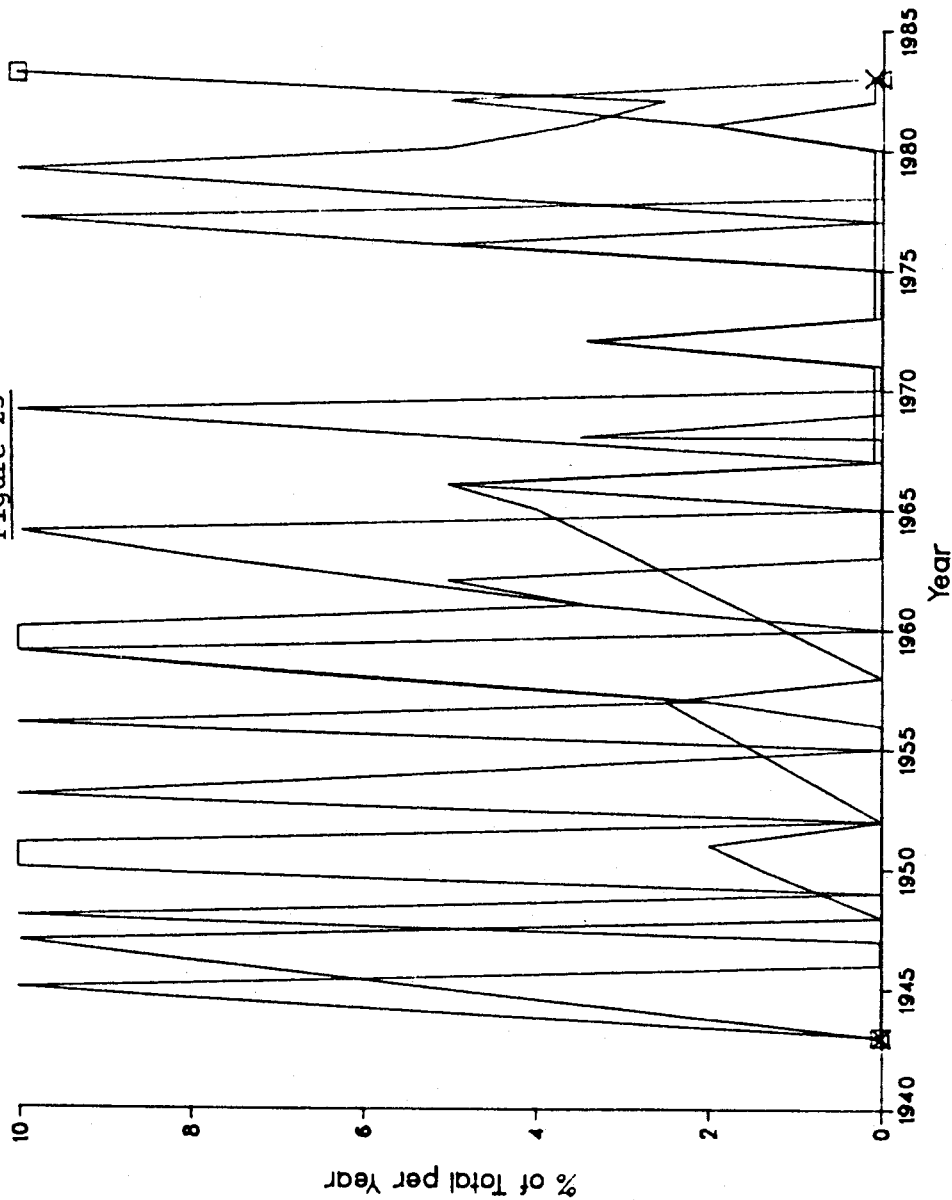
Figure 24



Legend
△ Current Persons using the product.
X Persons shown for the first time.
□ Current Persons using the product.

Are Persons Shown Users? (farm machinery)

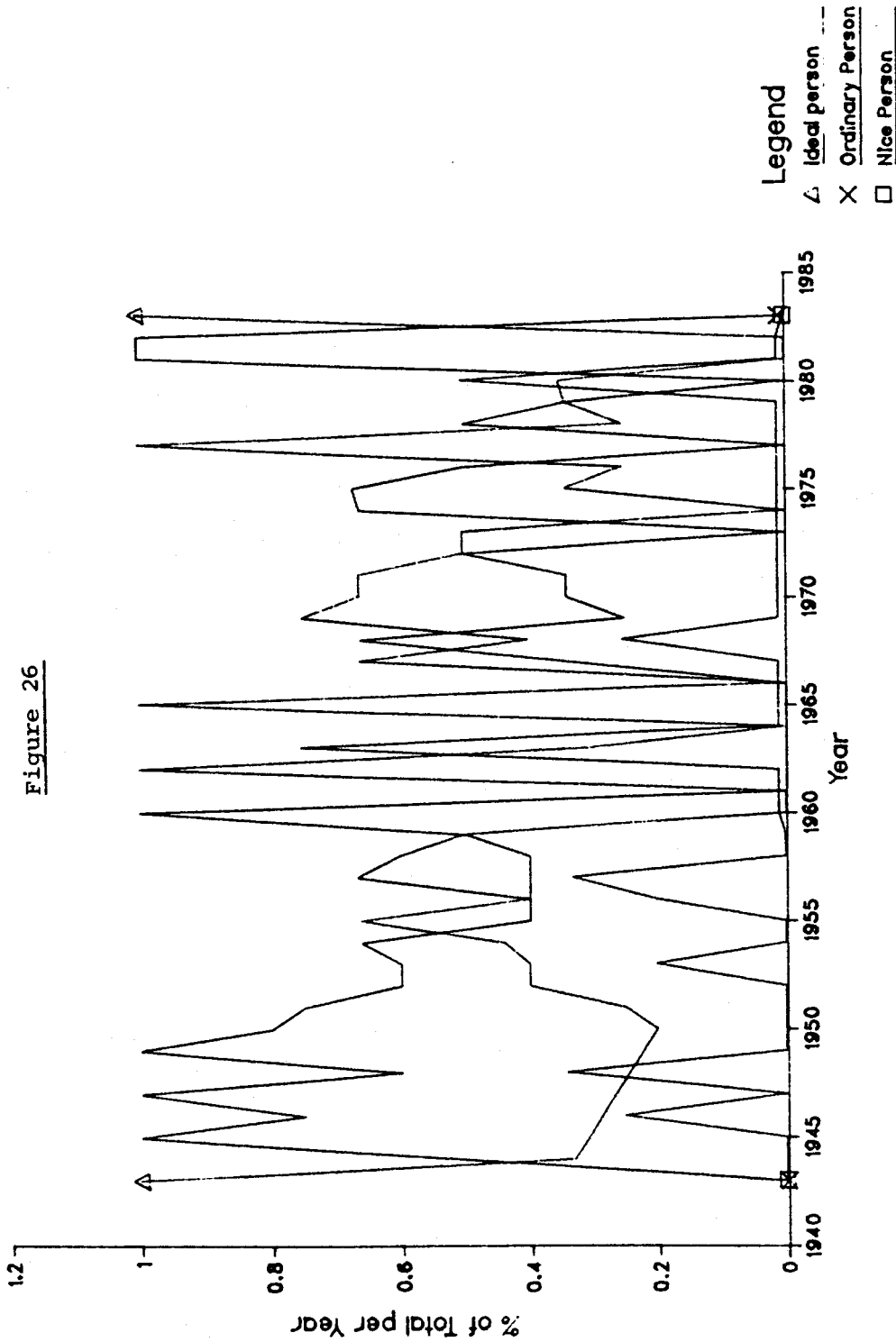
Figure 25



Legend
△ Persons Shown with the Product
X Persons Shown Not Using
□ Persons Shown Not Sampled Users

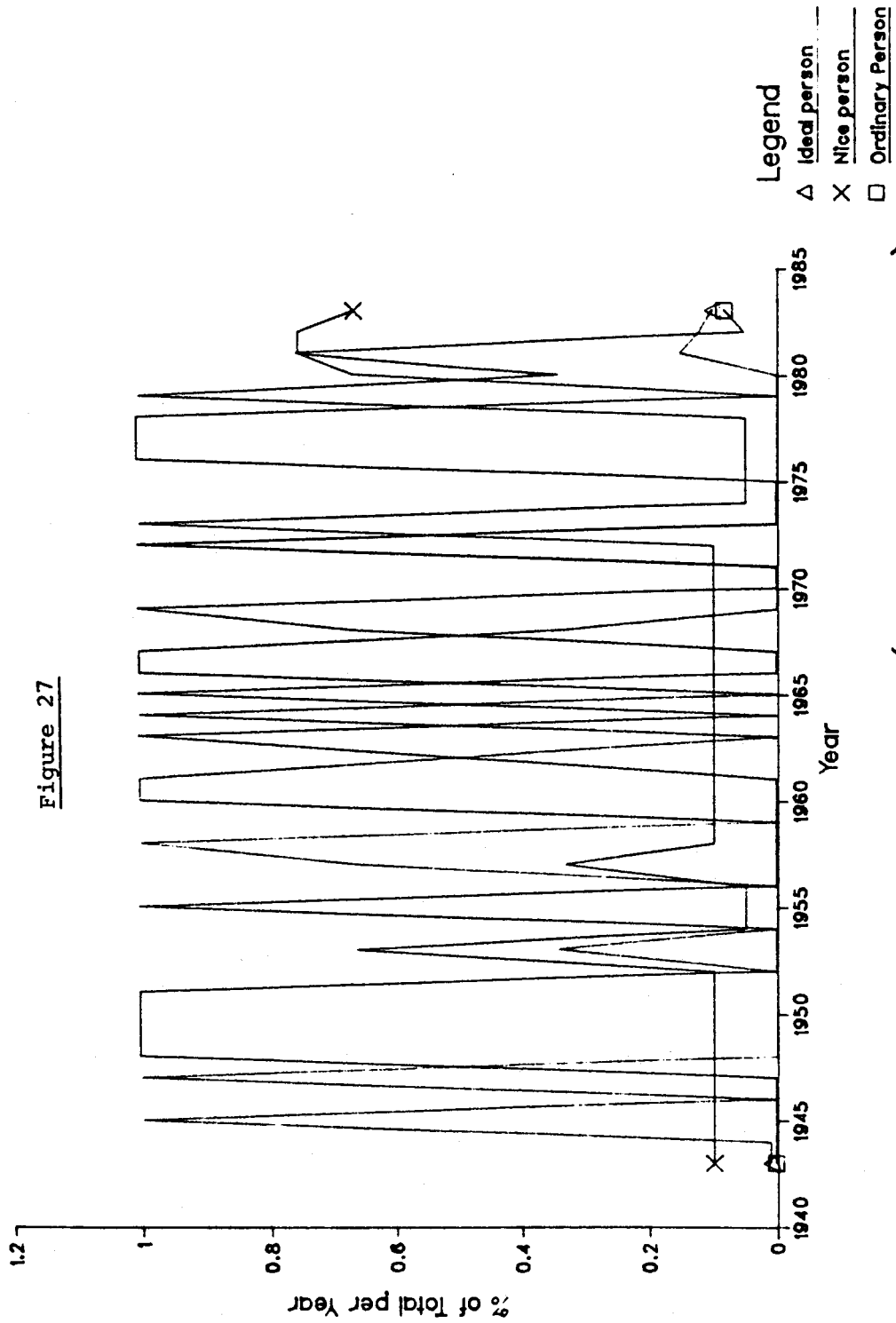
Are Persons Shown Users? (farm chemicals)

Figure 26



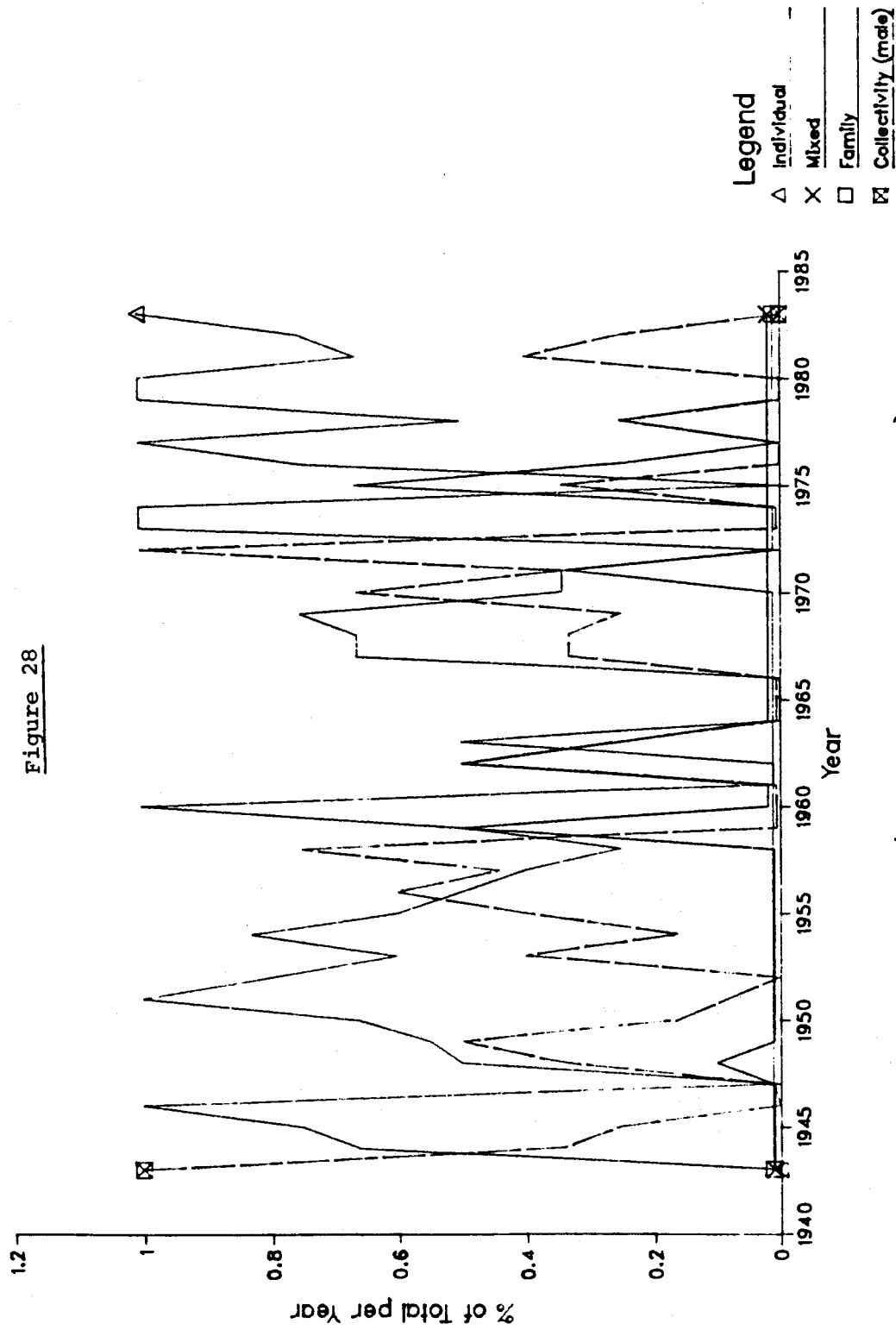
Representational Mode (farm machinery)

Figure 27



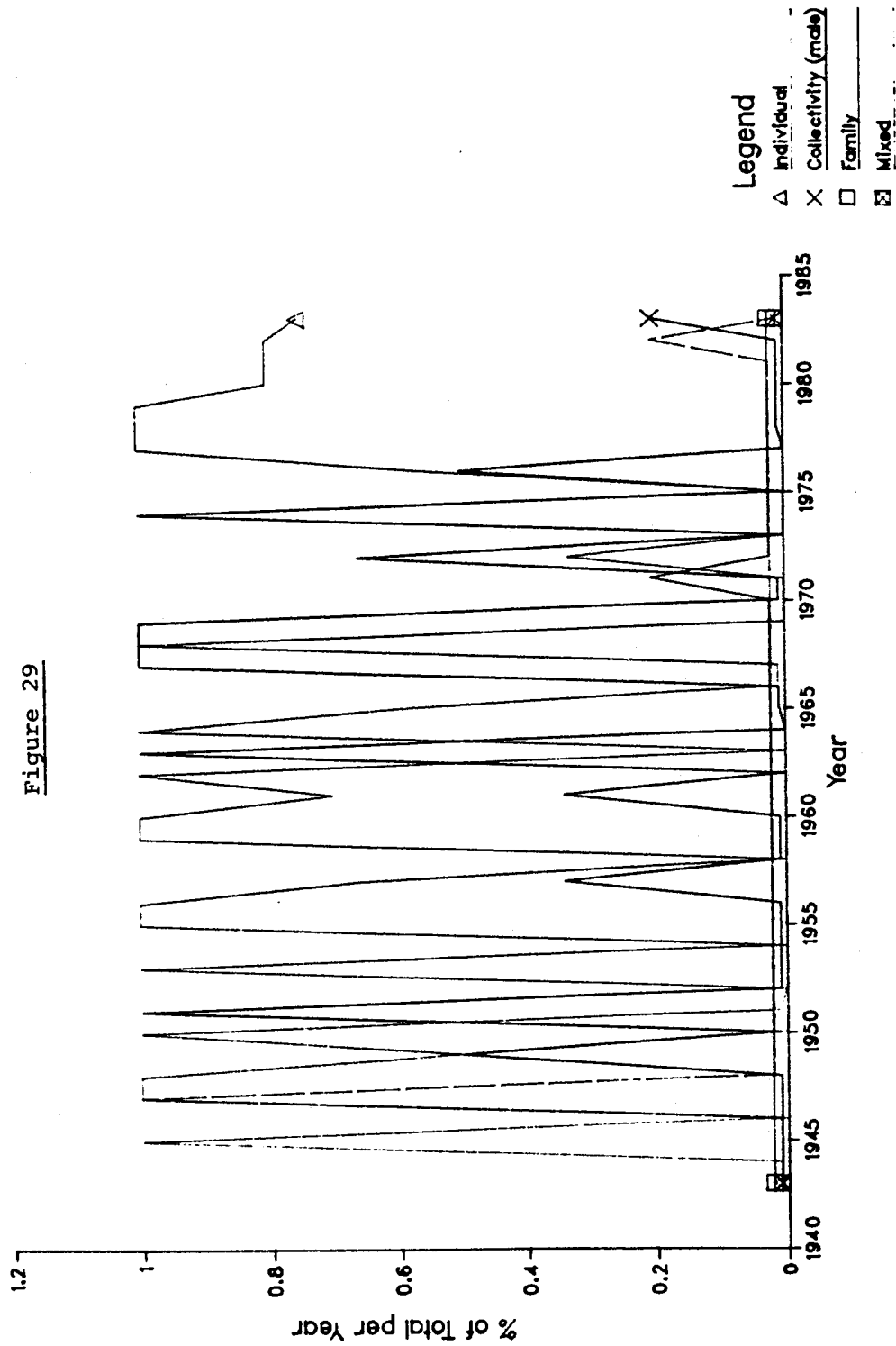
Representational Mode (farm chemicals)

Figure 28



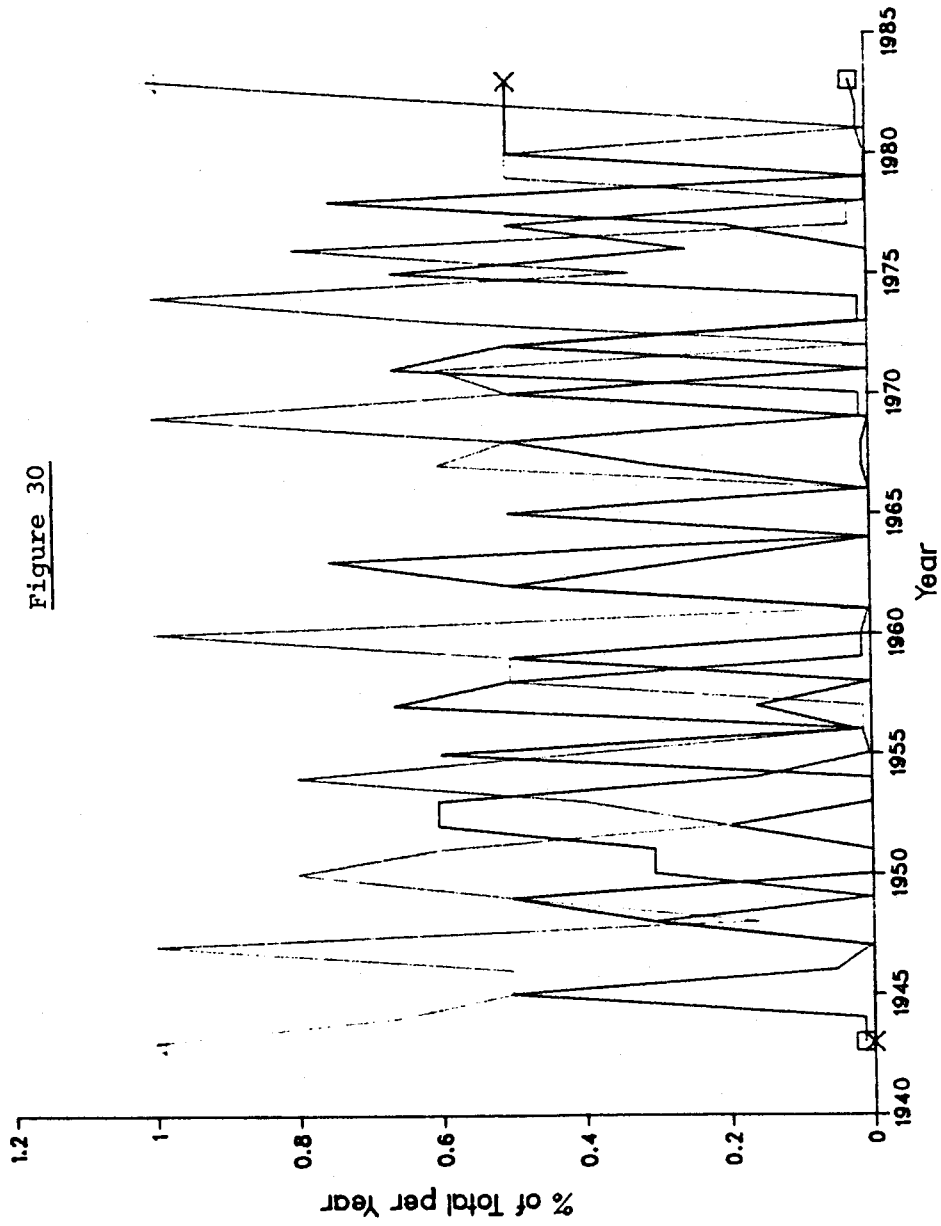
Grouping (farm machinery)

Figure 29



Grouping (farm chemicals)

Figure 30



Legend
□
△
×
◇

Emotional Reaction (farm machinery)

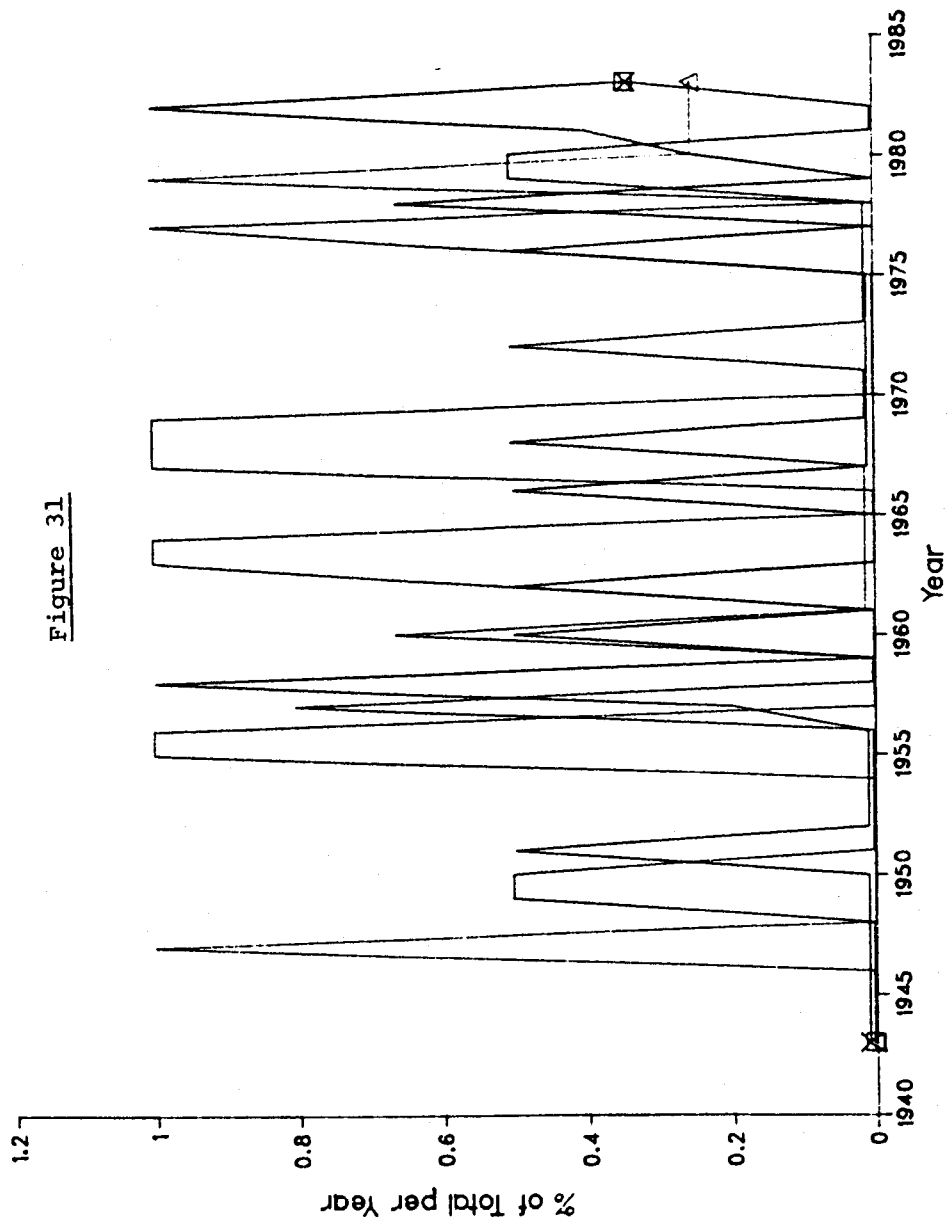
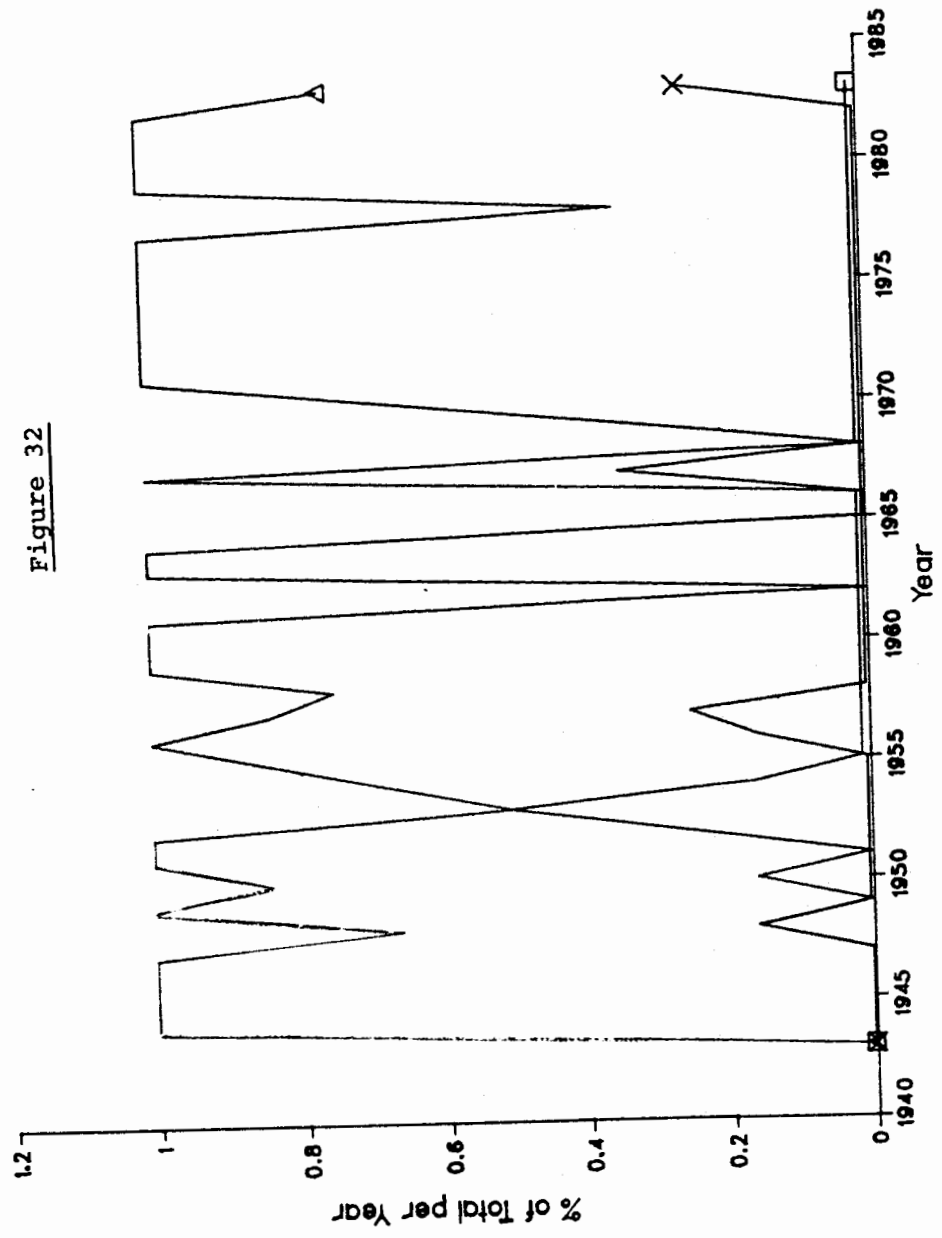


Figure 31

Emotional Reaction (farm chemicals)

Figure 32



Type of Setting (farm machinery)

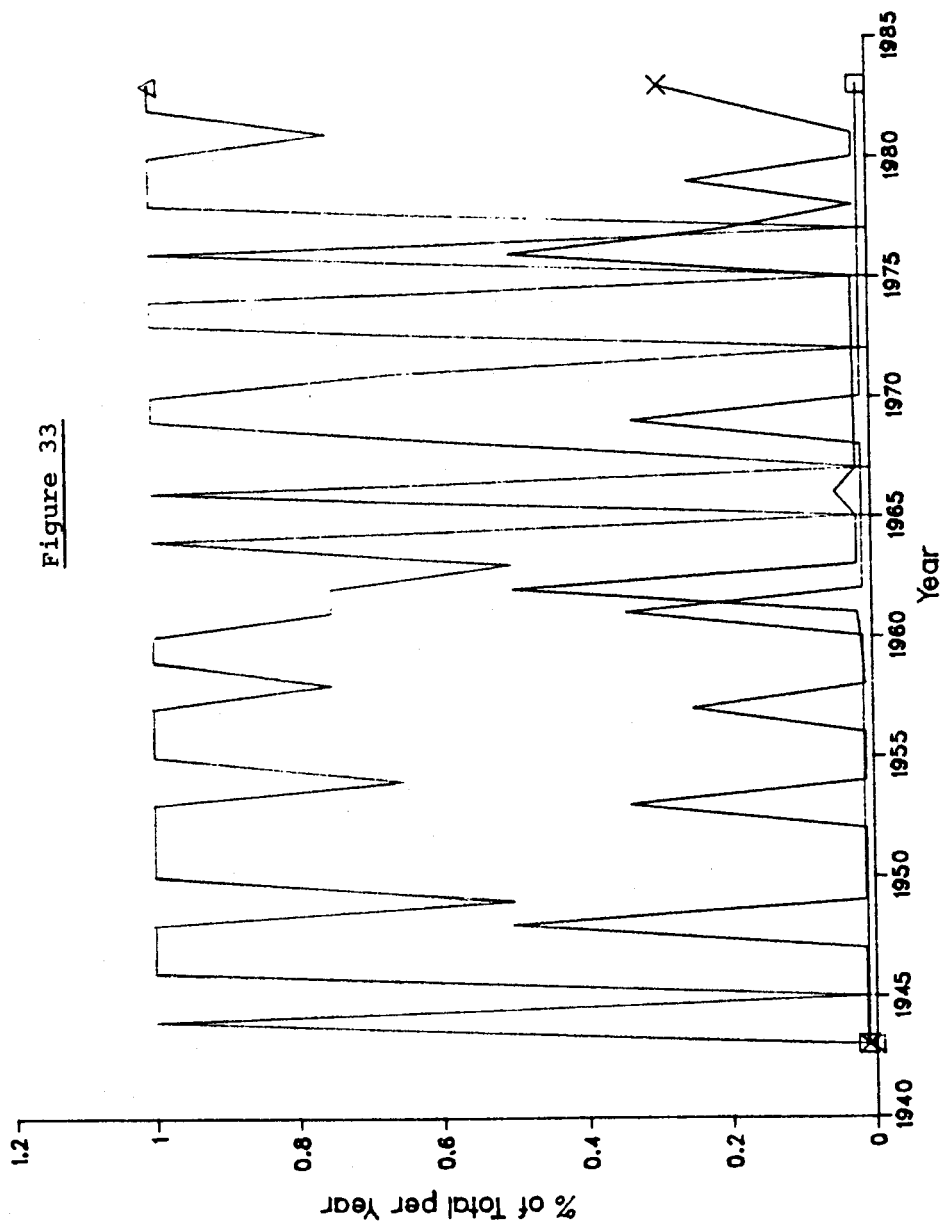
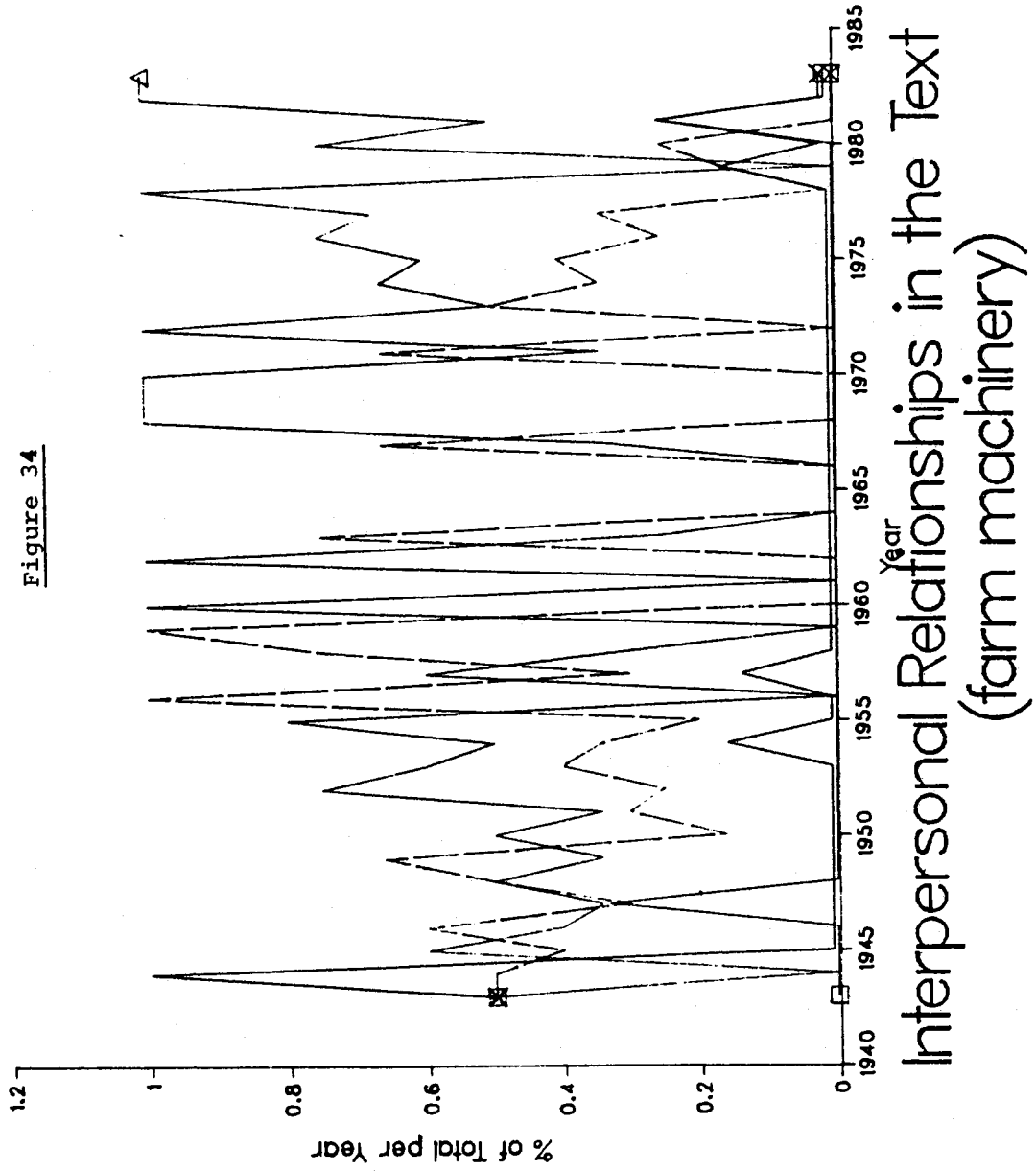


Figure 33

Type of Setting (farm chemicals)

Figure 34



Legend
▲ Triangle
× Cross
□ Square
● Circle
◆ Diamond

Interpersonal Relationships in the Text (farm machinery)

Figure 35

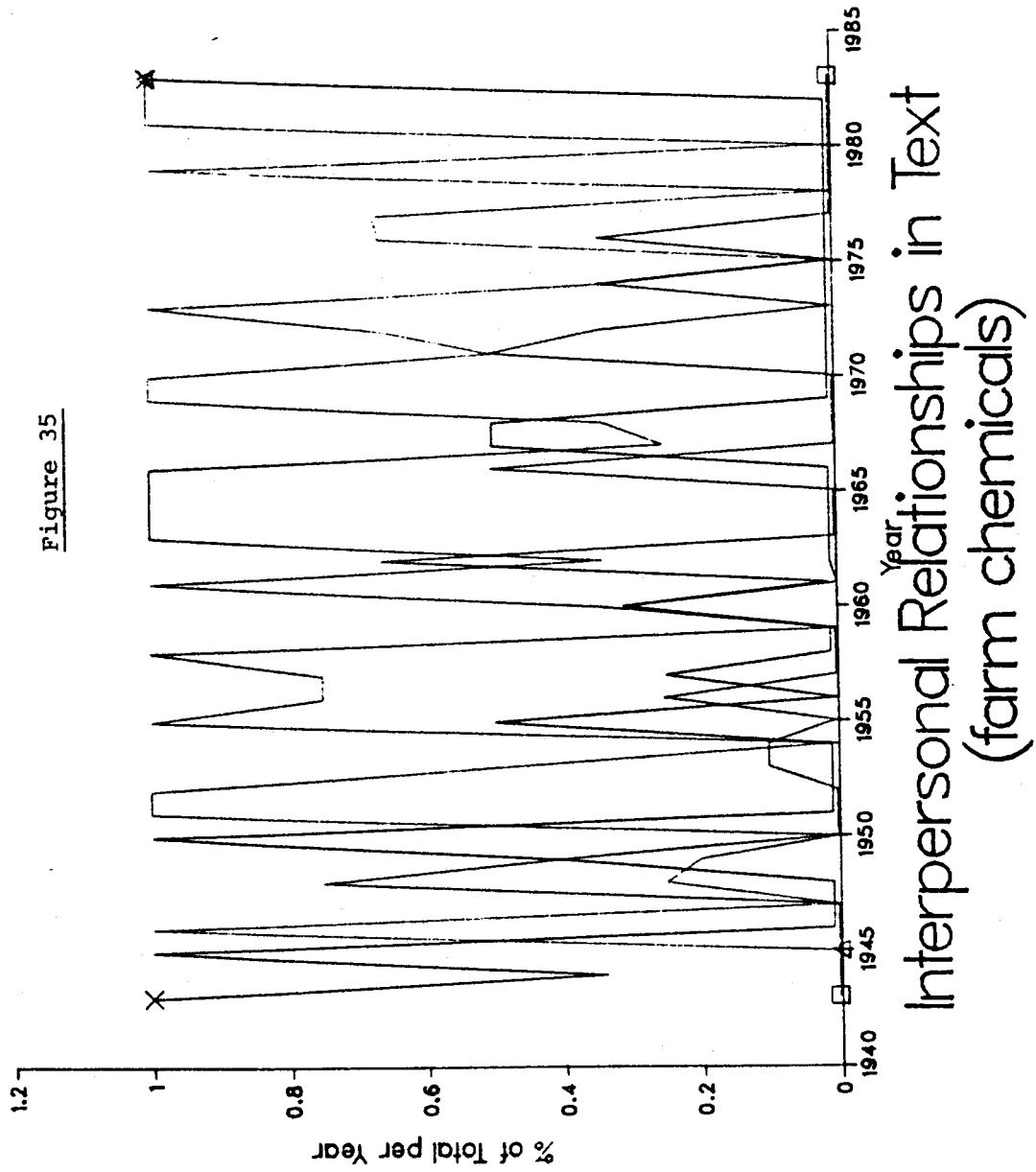
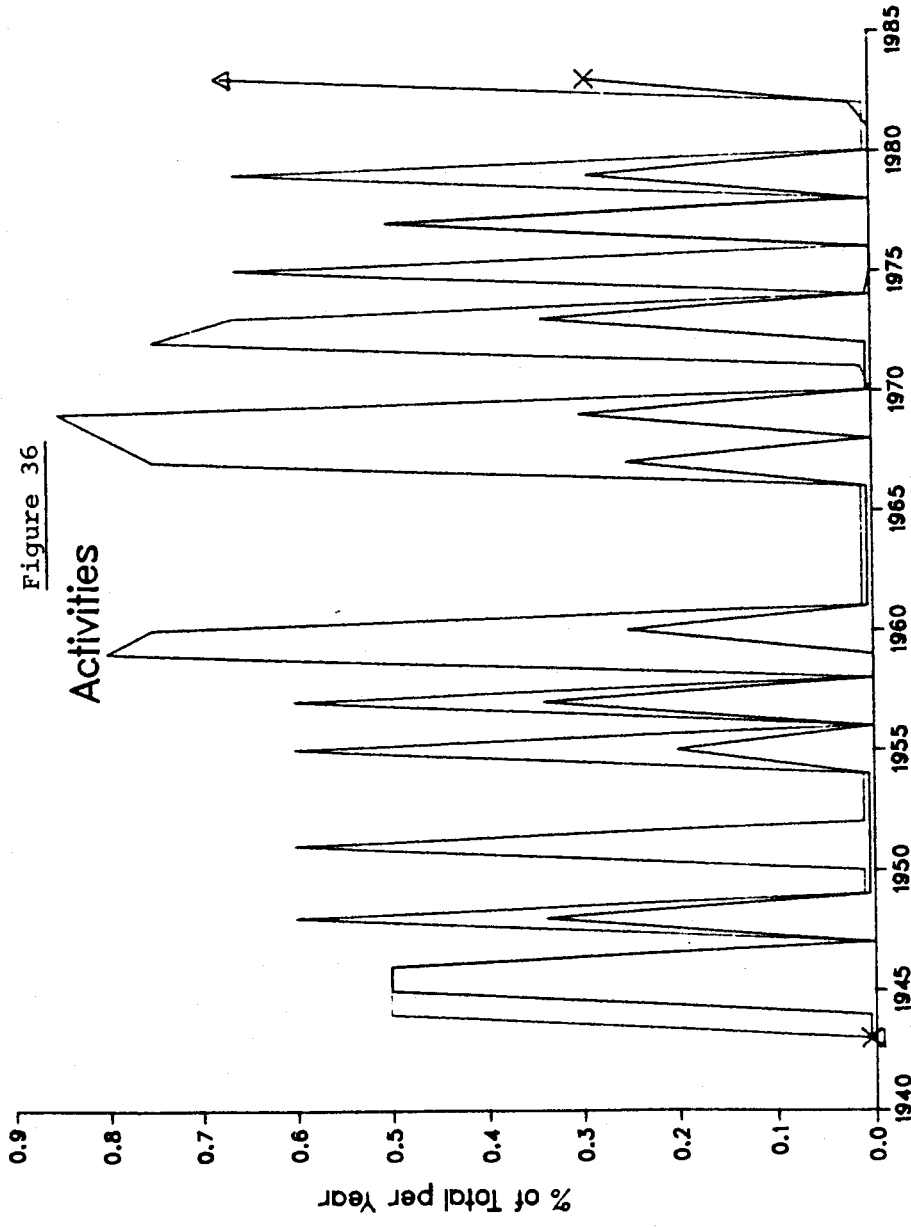


Figure 36

Activities



Legend

- △ Name
- X Use of Product (work)

Symbolic Dimension (text)
(farm machinery)

Figure 37

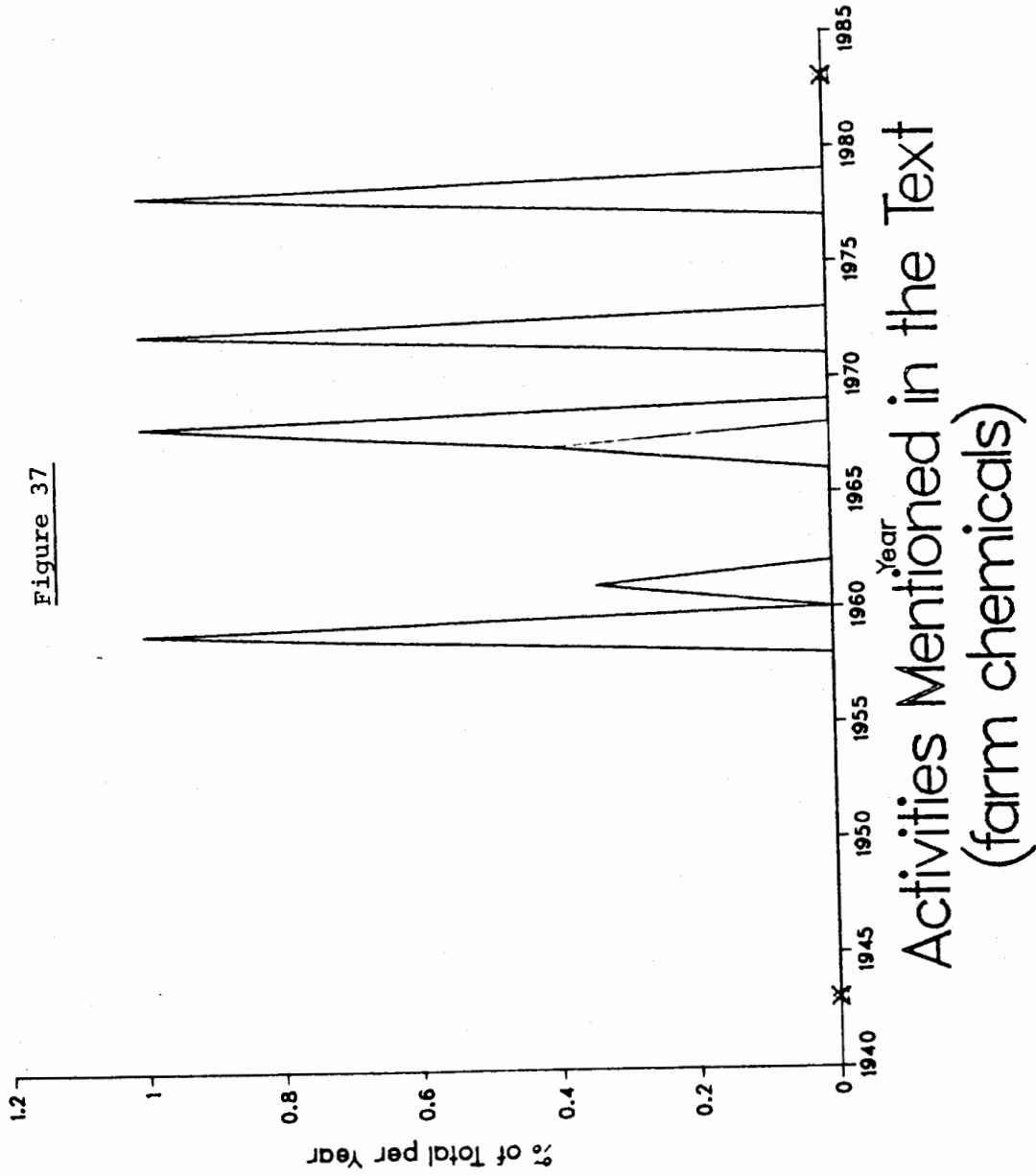
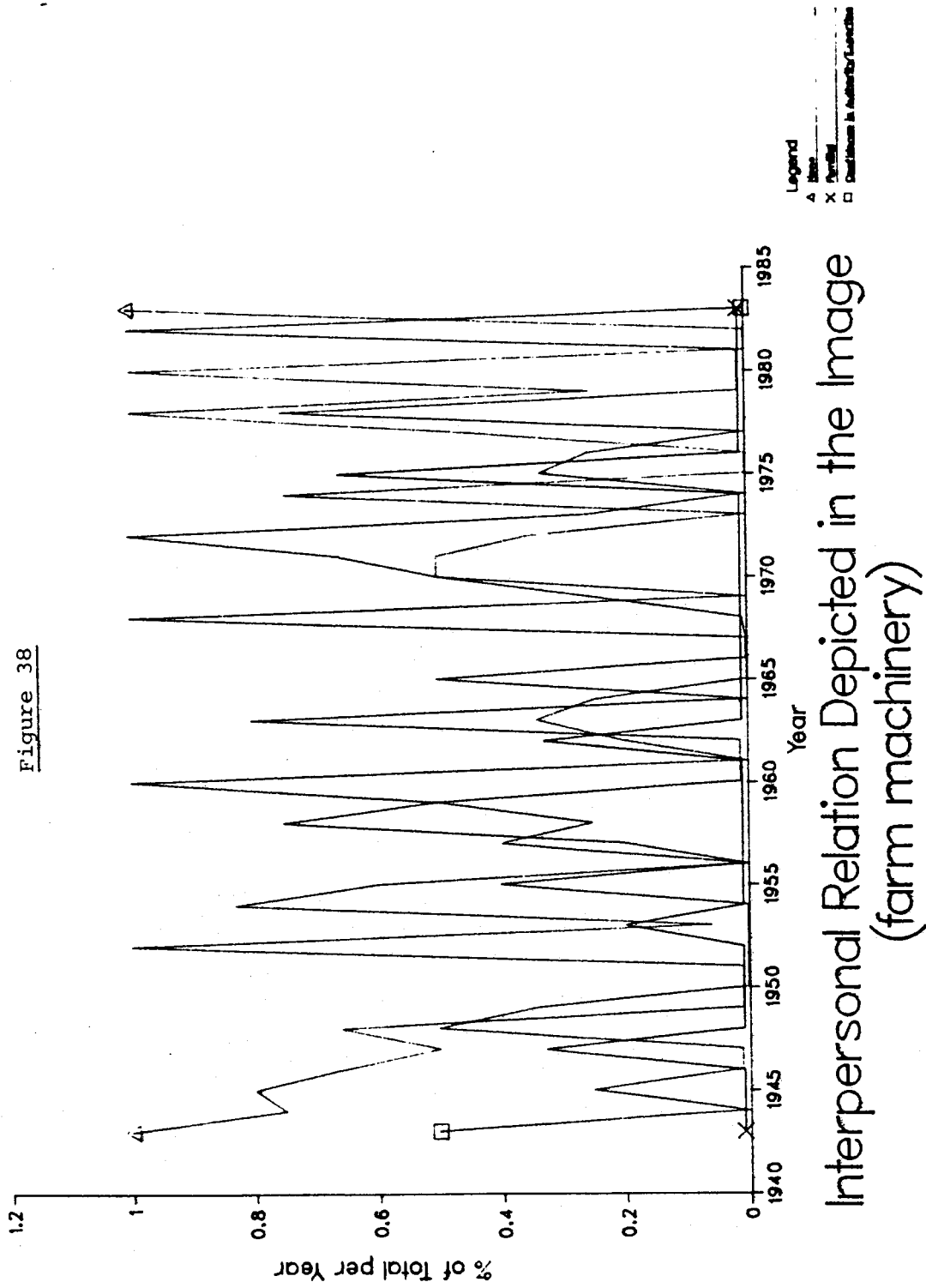
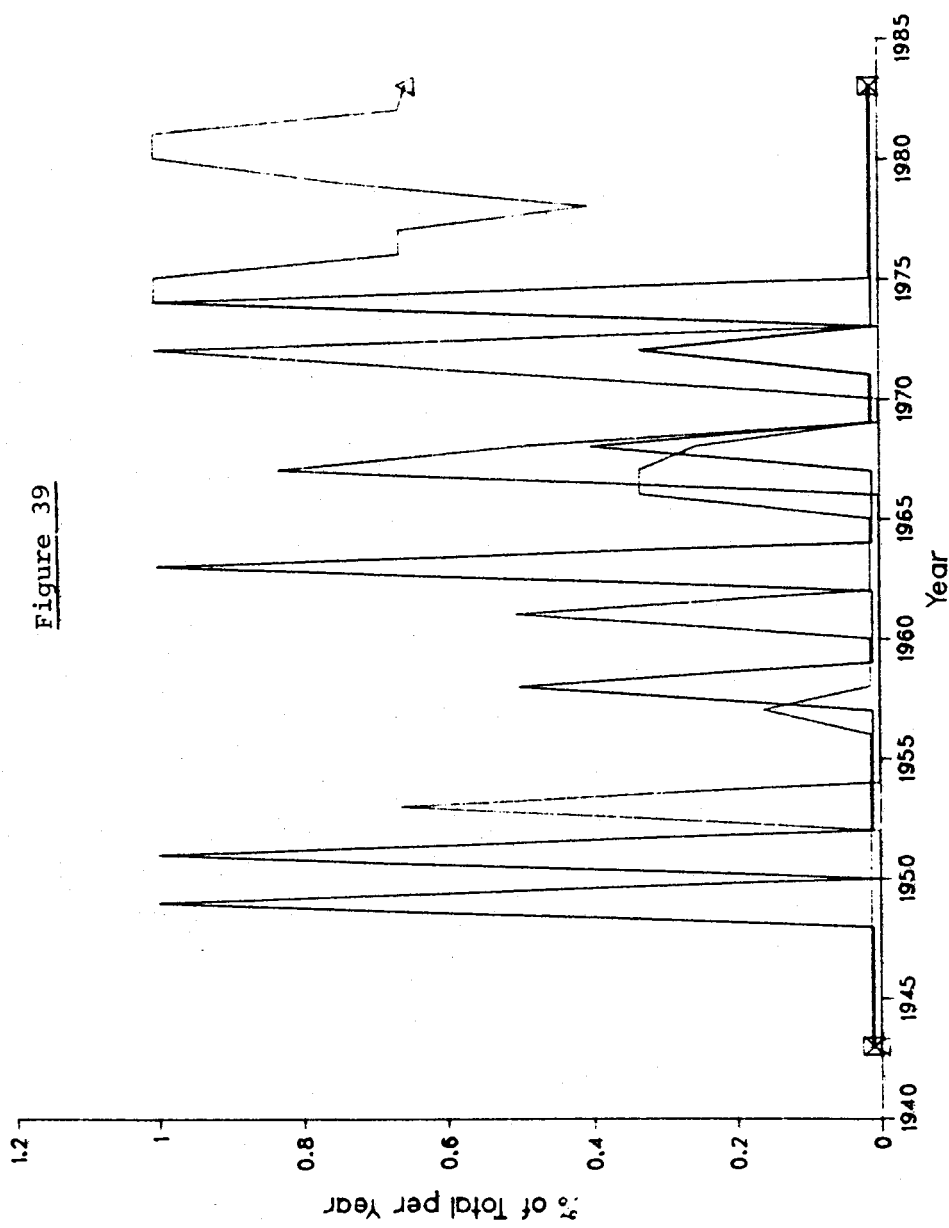


Figure 38



Interpersonal Relation Depicted in the Image
(farm machinery)

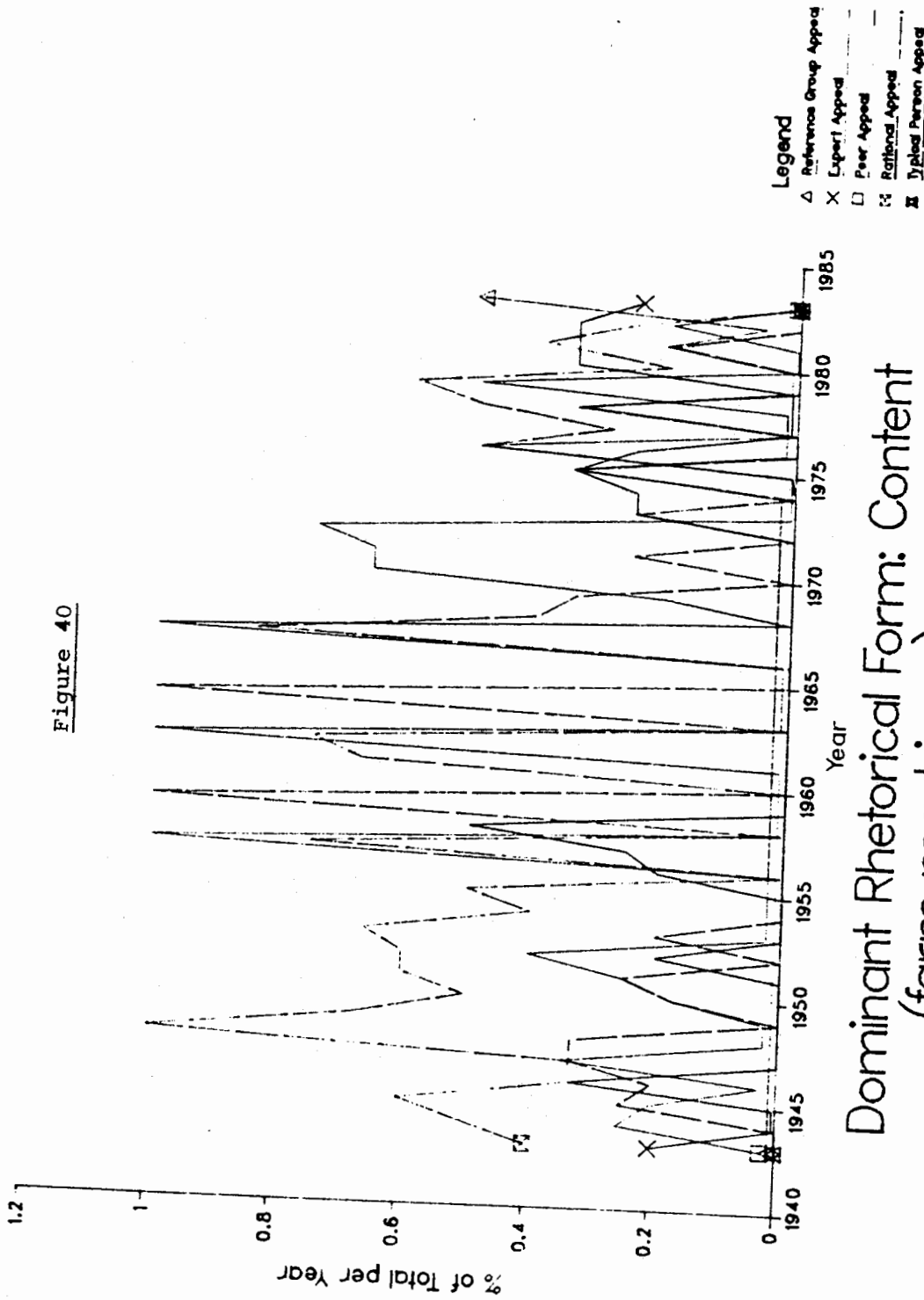
Figure 39



Interpersonal Relation Depicted in the Image
(farm chemicals)

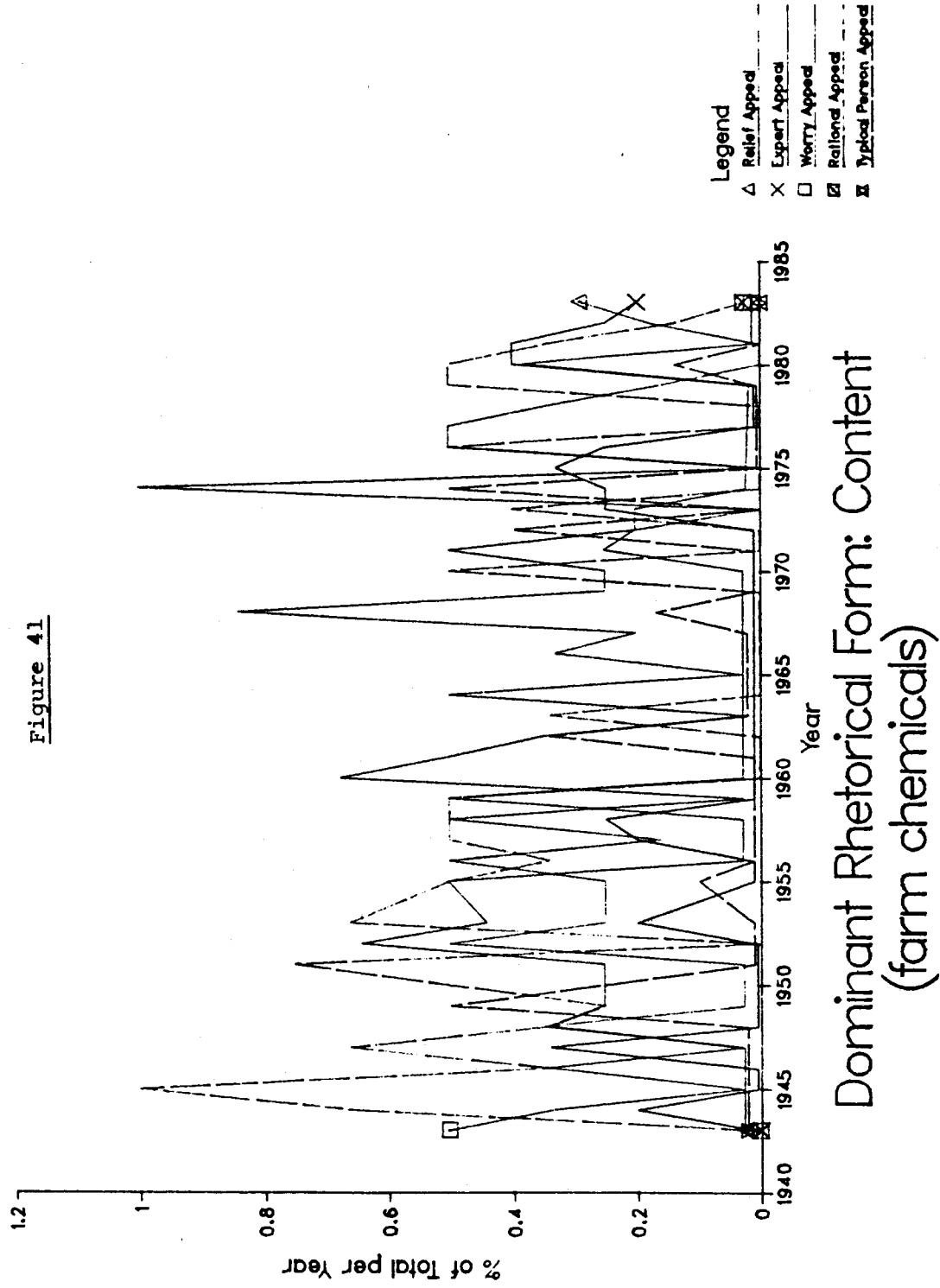
Legend
▲ Herbicides
× Other's (Residuals, Insecticides, Fungicides)
□ Fertilizers
○ Pesticides

Figure 40



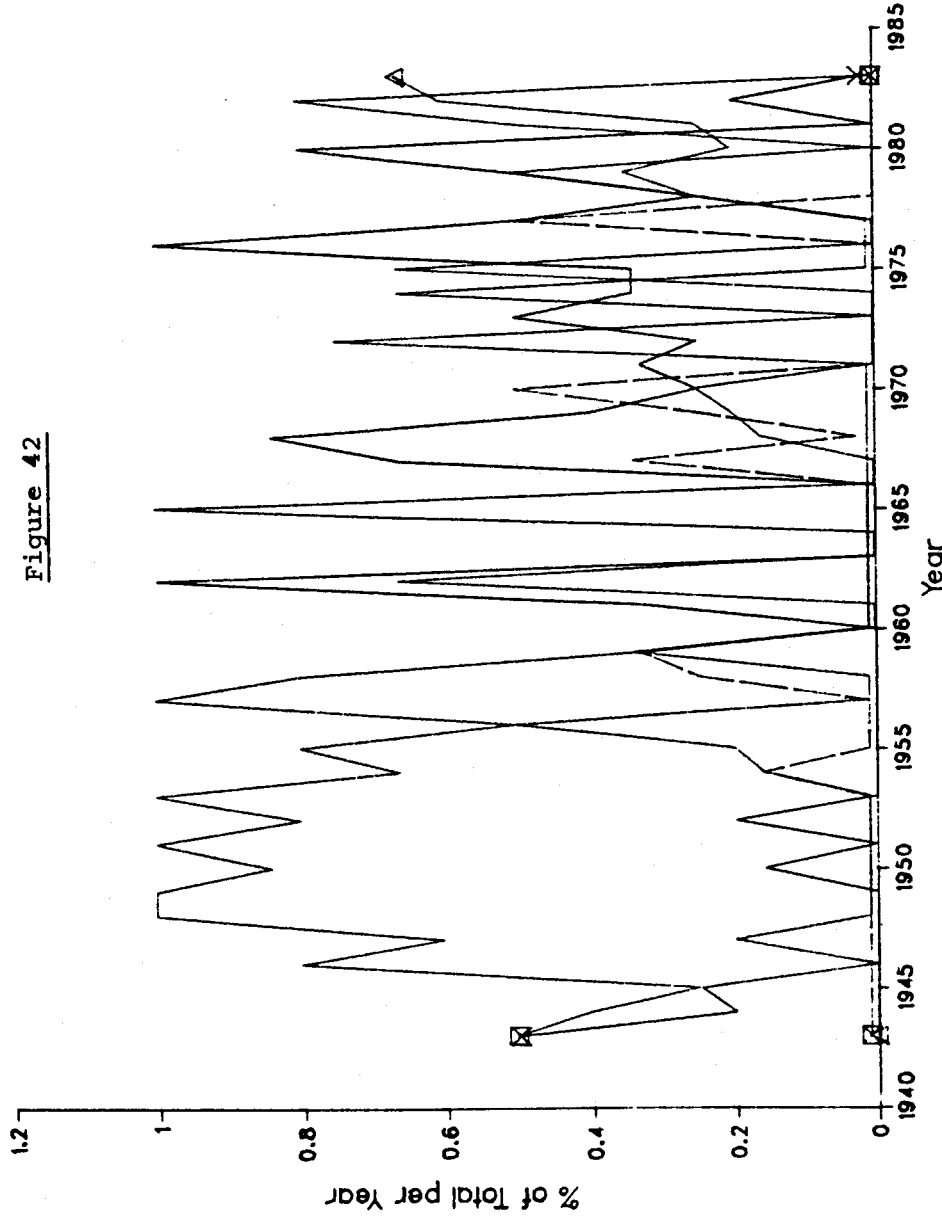
Dominant Rhetorical Form: Content (farm machinery)

Figure 41



Dominant Rhetorical Form: Content (farm chemicals)

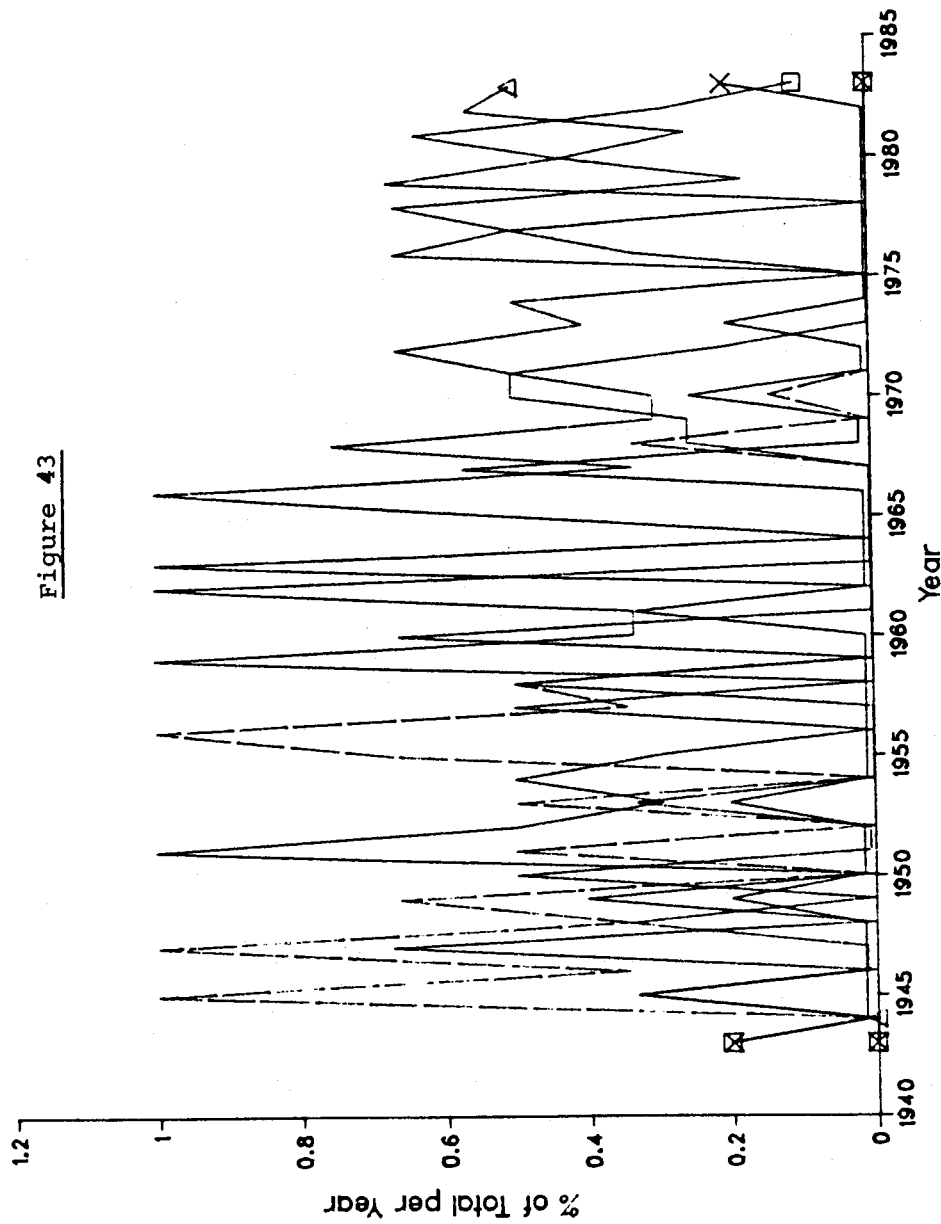
Figure 42



Rhetorical Form: Style (farm machinery)

- Legend
- A (solid line)
 - X (dashed line)
 - O (dotted line)
 - (dash-dot line)

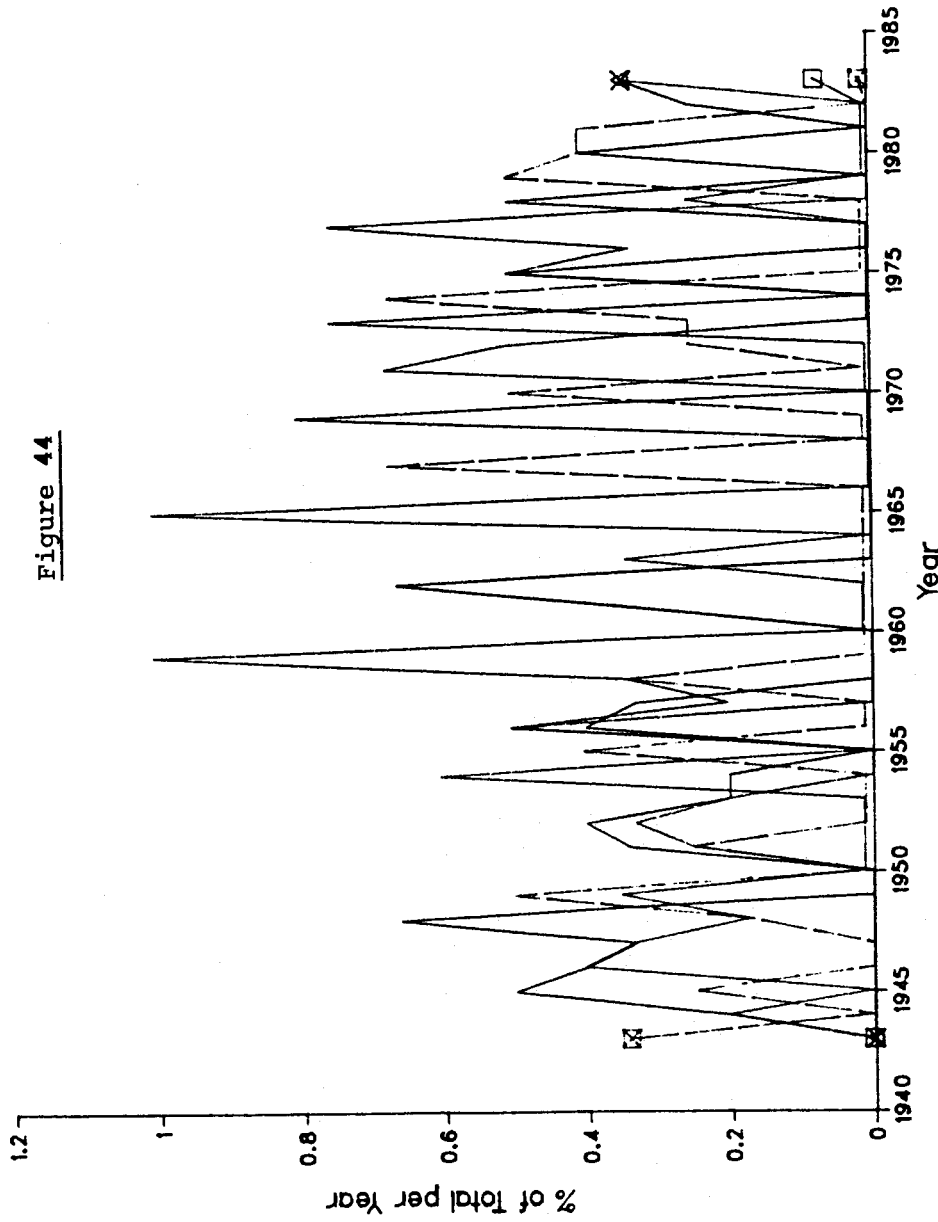
Figure 43



Rhetorical Form: Style (farm chemicals)

- Legend
- △ Chemical Property
 - × History/Accounting Characteristics
 - Statistical/Literary/Scientific Periods
 - Salt

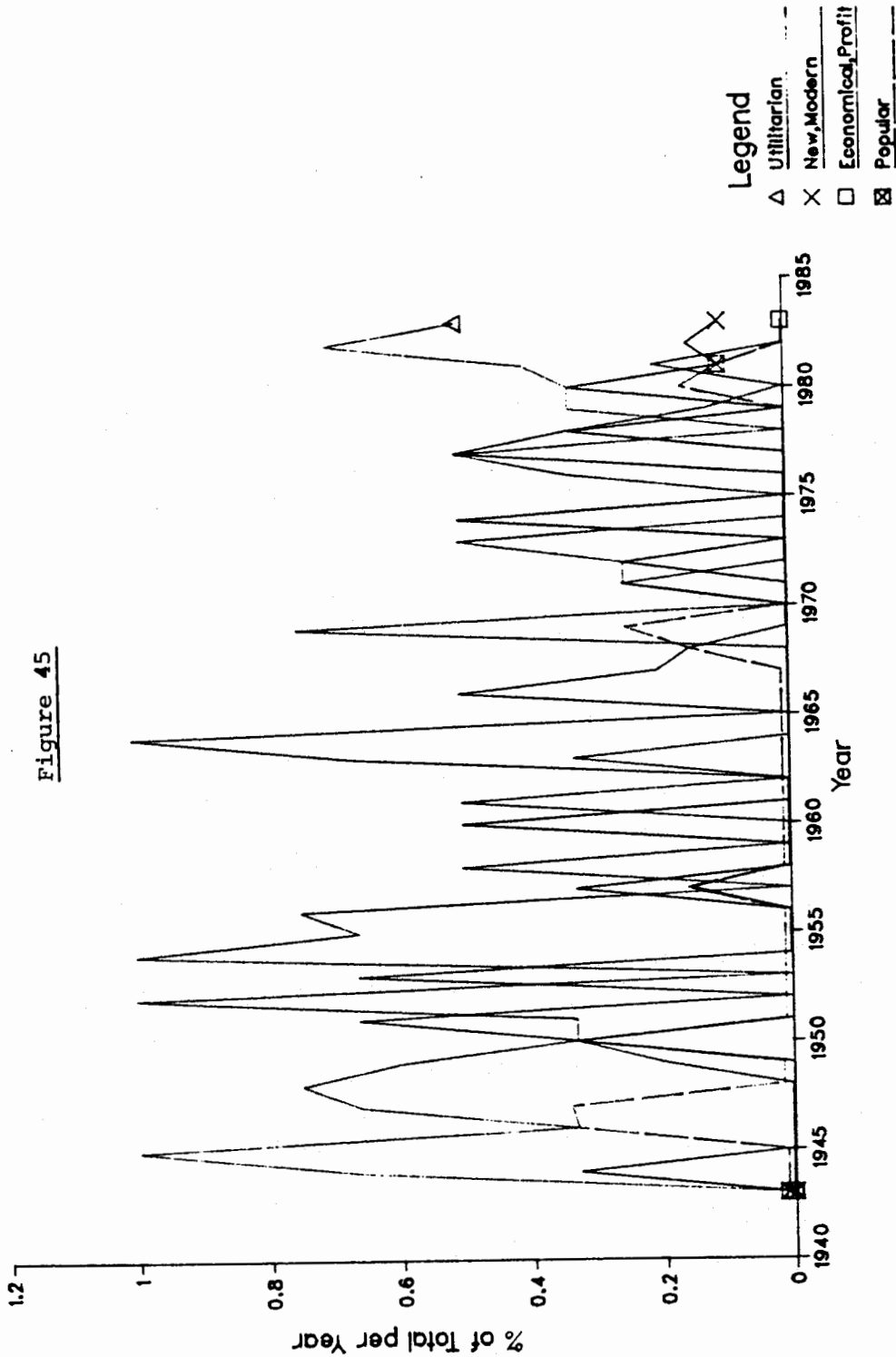
Figure 44



Legend
△ Convenience
× Utilitarian
□ Modern
⊠ Quality

Dominant Value (farm machinery)

Figure 45



Dominant Value (farm chemicals)

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