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Public Support for Small Farm Research in Oregon

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Interest and concern over the nature, status, and importance of "small farms" have been among the recent developments in the assessment of the changing structure of American agriculture. Agriculture in both the state and nation has changed markedly in the past 30 years. Rapid technological development and capital requirements have increased total production and average farm size while total acres, labor availability, and profit margins have decreased. Agricultural research itself was concerned with development of new technology, and innovative farmers and consumers were the primary beneficiaries of the new technology.

Recent concerns over environmental quality, the widespread use of chemicals, the quality of agricultural products, the apparent increase in the corporate scale of agriculture, and the apparent scarcity of energy all have combined to focus attention on the appropriateness of cost-efficient technology in agriculture. Suggestions that agriculture could redress many of its alleged ills by adopting an intermediate technology have been summarized and evaluated by Barkley (1978), among others. Elements of this intermediate technology include less reliance on chemicals, a concern for improved quality of food products reaching the consumer, as well as an enhancement of the "small farm" structure for the nation's agriculture.

Definition of a "small farm" varies, but a commonly used one focuses on the amount of annual gross sales from farming. The level employed in the Agricultural Act of 1977, for example, is $20,000 or less. Some agricultural economists, however, have built acreage restrictions into this definition. Thompson and Hepp (1976) employed gross farm sales of $20,000 or less as the upper limit, but stipulated that these farms also had to be at least 10 acres or more with annual farm sales of more than $250. Other considerations have included the level of off-farm employment, total dollar investment in land, buildings, and machinery, as well as the exclusive use of family labor on the farm, (i.e., no hired help). Thus, definitions have included limits on gross farm sales, on acreage size, on farm investment, and on level of employment of family labor.

The purpose of this study is to determine the public's definition of a "small farm" and the willingness of the public to support research on small farms. A premise underlying this investigation is that public preferences and mass interests should be considered in any major endeavor in which the public's interest is involved. The economist Hirschman (1970) has noted that the public is increasingly resorting to "voice" rather than "exit" as a method for registering complaints about publicly produced goods. He points out that the traditional market mechanism of substitution—the purchase of another firm's product when the original firm is performing unsatisfactorily to the consumer—called "exit" by Hirschman, is no longer available in many cases. "Voice," the substitution of complaint for "exit," is a device increasingly resorted to by the public.

"Voice" can take many forms. It includes the circulation of an initiative petition to prevent the construction of additional nuclear power plants in a state, the voting to limit property taxes, or the active interest of consumer groups to insure product safety. Evidence of public satisfaction or approval of new research endeavors may well become a necessary consideration before government becomes involved in these programs.

It is in this vein that an assessment of the public's definition of a "small farm" and willingness to support research in this area was conducted. A random sample of 813 Oregon adults was first asked to describe in their own words their image of a "small farm." Then they were handed a card in which five definitions were listed and were asked to select the one definition which best fit their description of a "small farm" in the state. Finally, each respondent was asked if he or she thought the state should or should not appropriate funds for "small farm" research. Personal interviews were completed the first two weeks of April 1978.

Public Definition of a "Small Farm"

Respondents used a variety of terms to describe a "small farm" in the state. These terms include the type of agriculture produce raised, intensity of family labor, acreage size, and non-economic aspects of the quality of life—peace and quiet, independence, happy times, etc. None related to the magnitude of annual farm sales or investment in land, buildings, or machinery. These responses are grouped and summarized in Table 1. The response groups, while exhaustive, are not mutually exclusive. Note that they total 158 percent, which indicates some respondents gave answers that were grouped in more than one category. A total of 64 percent specified an acreage size. Fifty-one percent defined a "small farm" in terms of the use of family labor and 37 percent named a specific crop or livestock enterprise. Five percent provided a definition commensurate with an alternative way of living.

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Table 1. Summary of Descriptions of a "Small Farm"

Description	Percent
Some livestock; a few chickens; a cow; horses; pigs	23
Self-supporting (no need for an outside job) only source of income; just sufficient for one family; a living	21
Owned and operated by one family; no need for hired help	18
One hundred acres or more	13
Not self-supporting; need a job on the outside	12
Fifteen to 49.9 acres	12
A small garden; a vegetable garden; berries	11
Fifty to 99.9 acres	9
Less than 5 acres	7
Ten to 14.9 acres	7
Five to 9.9 acres	5
Independence; peace and quiet; a fine way to live; open spaces; happy times; good health; security; no big rush; doing your own thing; no noisy traffic; private; away from the city	5
A source of some income; a cash crop	4
A truck farm	3
Diversification; a little of everything; more than one crop	2
One main crop	2
Miscellaneous: a victim of big business; a tax shelter; can't get government subsidies; a thing of the past	1
Don't know	3
Total	158
(N)	(813)

Statistical tests of demographic effects were not made because of multiple responses to the question. A perusal of demographic cross-tabulations showed, however, that men tended to give acreage limitations while women tended to cite livestock more frequently in their definitions. Younger persons stressed some livestock as well as a single-family operation. Respondents in professional-managerial occupations cited single-family, self-supporting operations, as did those who had completed college. Rural residents tended to stress non-self sufficient enterprises which required some additional off-farm work.

Respondents also were asked to select the one definition that best fits their own definition of a "small farm" in Oregon. The list of definitions and percent responses are shown in Table 2. These definitions were developed in part from the literature and in part after an examination of pre-test responses to the open-ended question concerning descriptions of a small farm.

Table 2. Responses to Definitions of a "Small Farm"

Definition	Percent
All family labor (no hired help)	41
Forty acres or less	17
Total investment in home, land, buildings, and machinery of less than $100,000	15
Less than a full-time job for one person	12
Total farm sales of less than $20,000 per year	12
Don't know	3
Total	100
(N)	(813)

The most frequently selected definition was the exclusive use of all family labor. This definition was endorsed by more than two of every five respondents. An acreage limitation of 40 acres or less and total investment in land, buildings, and machinery were selected by 17 percent and 15 percent, respectively. Less than a full-time job and total farm sales of less than $20,000 annually were endorsed by 12 percent. Clearly, Oregonians select a measure of family labor on the farm as the single most important characteristic for describing a "small farm" in the state.

The marginal frequencies reported in Table 2 did not vary significantly according to demographic characteristics

Table 3. Relationship Between Significant Demographic Characteristics and Opinions Concerning Funding For "Small Farm" Research

Demographic Characteristic	Should Fund	Should Not Fund	Don't Know	Total	(N)
	%	%	%	%	
Total:	58	35	7	100	(813)
Age:					
18-29	72	22	6	100	(207)
30-44	61	30	9	100	(226)
45-50	53	42	5	100	(166)
60 or over	43	49	8	100	(215)
Occupation:					
Prof.-Mgr.	59	37	4	100	(115)
White Collar	55	36	9	100	(255)
Blue Collar	62	32	6	100	(389)
Agric. or other	39	50	11	100	(54)
Rural/Urban:					
Rural	51	46	3	100	(134)
Urban	59	33	8	100	(679)
Geographical Area:					
Tri-county	59	32	9	100	(392)
Other Willamette Valley	56	37	7	100	(225)
Coastal	67	25	8	100	(36)
Eastern	64	29	7	100	(44)
Southern	50	48	2	100	(116)

Chi square for age: 45.093, 6 df; $P < .001$.
Chi square for occupation: 13.553, 6 df; $P < .05$.
Chi square for rural/urban: 9:443, 2 df; $P < .02$.
Chi square for geographical area: 17.938, 8 df; $P < .05$.

Table 4. Relationship Between Definition of a "Small Farm" and Support For "Small Farm" Research

Definition	Should Fund	Should Not Fund	Don't Know	Total	(N)
	%	%	%	%	
Total:	58	35	7	100	(813)
All family labor (no hired help)	57	35	8	100	(333)
Forty acres or less	60	35	4	99	(139)
Total investment in home, land, buildings, and machinery of less than $100,000	66	31	3	100	(119)
Less than a full-time job for one person	46	45	9	100	(101)
Total farm sales of less than $20,000 per year	60	30	9	99	(96)
Don't know	42	37	21	100	(25)

Chi square: 19.993, 10 df; $P < .05$.

of the sample. There was little variability due to a person's age, sex, income and educational level, occupation, rural/urban area of living, or geographical area of the state in which each respondent lived.

Demographic characteristics, however, differed significantly for opinions concerning whether the state should or should not appropriate funds for "small farm" research.[1] These data are reported in Table 3. Statistically significant differences were found for age, occupation, rural/urban living, and for geographical area of the state.

The data in Table 3 show that young people more than older persons endorsed funding for "small farm" research. Those in agricultural and other occupations supported the idea less than those in other occupations, as did rural residents. Southern Oregon residents also supported the idea less strongly than residents in other areas of the state.

A comparison of how respondents defined a "small farm," shown in Table 2, and their opinion concerning "small farm" research, shown in Table 3, also was made. It is conceivable that persons who defined a "small farm" in terms of the use of family labor may well support "small farm" research differently than persons who defined it in terms of investment, farm sales, or acreage size. This comparison is shown in Table 4.

Respondents who defined a "small farm" in terms of investment supported research more strongly than those who defined a "small farm" differently. The one definition receiving the least support was that of less than a full-time job for one person, and was the only one receiving less than majority support. An ingredient apparently necessary for public support for "small farm" research is the requirement that these farms are a full-time occupation, particularly for those who define a "small farm" in this way.

Estimated Number of "Small Farms" in Oregon

Public support for "small farm" research does seem to depend on the way people define it. Support tends to be strong—averaging close to 60 percent or more—for definitions which imply all family labor, 40 acres or less, total investment of less than $100,000, and total farm sales of less than $20,000 annually. Support dwindles to 46 percent for farms which require less than a full-time job for one person. A question which suggests itself is how many (or which percent) of farms in the state can be classed as "small" by these definitions. The 1974 Census of Agriculture reports there are 26,753 farms in the state which qualify as a farm.[2]

The percent of "small farms" in the state does vary considerably, according to the census. These percentages are shown in Table 5.

Table 5. Estimated Percent of "Small Farms" in Oregon

"Small Farm" Definition	Percent
All family labor (no hired help)	75
Total investment in land and buildings of less than $100,000	61
Less than a full-time job for one person	32
Total farm sales of less than $20,000 per year	71
Total number of farms	26,753

These estimates required, in certain instances, some interpolation between grouped data, as in the case of the definition of 40 acres or less. The investment definition did not include machinery and the total percentage was difficult to estimate without cross-tabulation of machinery with land and building investment groups. Moreover, 16 percent of those surveyed in Oregon apparently did not respond to the off-farm employment question, so one is not sure how to allocate these non-responses.

However, if one adopts the most frequently cited definition of a "small farm" in Oregon (all family labor), one is talking about 75 percent of the farms. Addition of an off-farm work restriction for the farm operator will bring this figure down to probably no less than 32 percent.

Summary and Conclusions

The definition which taps public recognition and support for "small farm" research most strongly suggests that these farms are ones which require full-time, all-family

[1] This question followed two others concerning the respondent's definition of a "small farm" and represents an attitudinal evaluation of funding for "small farm" research as defined by the respondent.

The exact wording of the question was:

"Do you think the state should, or should not, appropriate funds for small farm research?"

[2] A farm is defined to include all land on which agricultural operations were conducted at any time in the census year under the day-to-day control of an individual management, and from which $1,000 or more of agricultural products were sold during the census year. Control may have been exercised through ownership or management, or through a lease, rental, or cropping arrangement. Places having less than the minimum $1,000 sales in the census year were also counted as farms if they could normally be expected to produce agricultural products in sufficient quantity to meet the requirements of the definition.

labor with no hired help. At least a third of the farms in the state are likely to fulfill this definition and represent a target or client group for focusing agricultural research programs. Aspects of rural living did not surface strongly in this study and may relate more to issues of rural development than to "small farms" and farming. Additional study may well spell out interrelationships between rural development or rural living and interests or concerns of "small farms." Moreover, one may conjecture with safety that there is public approval for the investment of agricultural research which benefits "small farms" as the term is defined above.

The definition of a "small farm" developed in this study does not benefit from an evaluation of the public's knowledge of the issue or the depth of concern the public may hold about "small farms" in the state. The definition is an effort to construct a concept in which public preferences are considered and a consideration of these preferences clearly suggests that terms employed in the past are not well recognized by the public at this time.

References Cited

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