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Abstracts



## COMPETENCIES IN LIVESTOCK MARKETING NEEDED BY FARMERS

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*This is an abstract of a thesis submitted in August of 1965 to Iowa State University of Science and Technology by Lindley John Hoyt in partial fulfillment of the requirements for the degree of Master of Science.*

*The study is one of a series conducted by the Department of Education of Iowa State University of Science and Technology with the assistance of graduate students in agricultural education in cooperation with the Iowa Agriculture and Home Economics Experiment Station and the Vocational Agriculture Section, Division of Vocational Education, State Department of Public Instruction.*

*This abstract was prepared by Lindley John Hoyt with the assistance of Alan Kahler, research assistant for the Iowa Agriculture and Home Economics Experiment Station Project 1253, under the direction of Professor C. E. Bundy.*

# COMPETENCIES IN LIVESTOCK MARKETING NEEDED BY FARMERS

by

Lindley John Hoyt

## Purpose of the Study

The purposes of this study were: (1) to determine the competencies needed by beef, sheep, and swine producers in order to be successful in livestock marketing, (2) to determine the relation of certain personal factors in the background and training of a selected sample of beef, sheep, and swine producers in Iowa to their evaluation of the degree of competence needed and the degree possessed in each of the competencies, (3) to plan for educational needs of future replacement of beef, sheep, and swine producers.

## Method of Procedure

The panel responsible for developing the list of competencies used in this study consisted of 12 men, who are specialists in beef, sheep, and swine production and marketing.

The competencies selected by the specialists were carefully scrutinized by the state secretaries of beef, sheep, and swine associations before they were used in a questionnaire which was submitted to a select group of 100 beef, 100 sheep, and 100 swine producers in Iowa. Those livestock producers were asked to evaluate the degree of competency that they needed to succeed in marketing livestock efficiently, and the degree that they presently possessed. The rating of degree of competency was on a five-point scale (1 to 5). Certain personal information was requested for use in stratifying the respondents. Usable questionnaires were received from 80 beef, 81 swine, and 79 sheep producers.

## Findings

The competencies needed in the various areas of livestock production which were selected by the panel of specialists are listed in the tables. Of the 74 competencies, 35 were classified as abilities and 39 as understandings.

The mean scores for the degree of the competencies which beef producers indicated that they needed and possessed are shown in Table. 1. The competencies were scored on a five-point scale, with 5 indicating very much competence needed, or possessed, and 1



Table 1. Degree that beef marketing competencies were needed and possessed by selected producers by major livestock enterprise

Competencies	Mean scores					
	N=80		N=50		N=63	
	Beef	Sheep	Swine	Beef	Sheep	Swine
	Needed <sup>a</sup>	Possessed <sup>b</sup>	Needed <sup>a</sup>	Possessed <sup>b</sup>	Needed <sup>a</sup>	Possessed <sup>b</sup>
Ability to:						
Estimate weight of beef cattle	3.8	3.3	2.4	2.1	3.1	2.6
Sell cattle when they are ready for their grade	3.0	3.7	2.9	2.1	3.3	2.6
Estimate grade and yield of cattle	4.1	3.4	2.6	2.0	3.0	2.3
Figure pencil shrink	3.8	3.5	2.6	2.0	3.0	2.3
Estimate cost of grain at different weights	4.0	3.6	2.7	2.2	3.1	2.7
Select market for kind of cattle produced	3.9	3.7	2.7	2.2	2.8	2.7
Prepare cattle for shipment	3.6	3.8	2.4	2.3	2.7	2.6
Feed properly when moving cattle to minimize shrink	3.7	3.6	2.4	2.3	2.7	2.6
Select trucker on livestock hauling reputation	3.5	3.8	2.6	2.6	2.4	2.9
Select commission firm	3.8	3.1	2.5	2.1	2.7	2.5
Select market (local-terminal)	4.0	3.8	2.7	2.3	2.8	2.8
Figure returns above costs	4.1	3.8	2.8	2.5	2.9	2.7
Overall mean scores for abilities	3.8	3.6	2.6	2.2	2.9	2.6
Understandings of:						
Beef marketing trends and cycles	4.1	3.0	2.8	2.2	3.1	2.2
Producing cattle which meet market demands during the year	4.1	3.4	2.7	2.0	3.0	2.2
Spreading marketing throughout the year	4.0	3.4	2.6	2.2	2.8	2.4
County, state and national beef promotional organizations	4.4	2.9	3.2	2.1	2.8	2.3
Beef futures market	3.9	2.5	2.7	1.7	2.9	1.9

<sup>a</sup>5--very much competence needed, 4--much competency needed, 3--some competence needed, 2--little competence needed, 1--no competence needed.

<sup>b</sup>5--very much competence possessed, 4--much competence possessed, 3--some competence possessed, 2--little competence possessed, 1--no competence needed.







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Figure pencil shrink	3.8	3.5	2.6	2.0	3.0	2.3
Estimate cost of grain at different weights	4.0	3.6	2.7	2.2	3.1	2.7
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<sup>b</sup>5--very much competence possessed, 4--much competence possessed, 3--some competence possessed, 2--little competence possessed, 1--no competence needed.



Table 3. (continued)

Competencies	Mean scores					
	N=67 Beef			N=50 Sheep		
	Needed	Possessed	Needed	Possessed	Needed	Possessed
Understandings of:						
Influence of heritability factors on market grade or dressing percentage	4.0	2.9	3.9	3.1	4.1	3.4
Influence of heritability factors on carcass quality and quantity in pork	4.0	3.2	4.2	3.1	3.9	3.4
Consumer demands for pork	4.7	3.2	4.1	3.3	4.0	3.2
Feed conversion as an animal goes above 210#	4.1	3.3	4.1	3.4	4.0	3.5
Livestock loss and the factors causing such loss	4.1	3.5	4.2	3.6	4.0	3.5
Transportation and feeding to minimize shrink	3.6	3.6	4.0	3.6	3.6	3.2
Meat substitutes and their overall effect on hog production	4.2	2.9	4.0	3.1	3.9	2.8
Year end marketing effect on net profit	4.0	3.3	4.0	3.3	3.9	3.4
Overall mean scores for understandings	4.1	3.3	4.0	3.3	3.9	3.4



Beef producers indicated, as shown in Table 1, that they possessed more competency than needed in the abilities: to sell cattle when they are ready for their grade, to prepare cattle for shipment, and to select a trucker on livestock hauling reputation. The mean scores shown in Table 2 indicate that sheep producers did not feel that they possessed more competency than needed but did feel that they possessed as much ability as was needed to figure feed conversion. Information given in Table 3 indicates that swine producers felt that they possessed more ability than needed to select a trucker for safe marketing, to have adequate loading facilities for safe loading, to prepare transporting vehicle for safe hauling of hogs, and to load carefully to minimize shrink.

Differences between overall mean scores for abilities needed and possessed were .5 for the beef producers, 1.1 for the sheep producers, and .1 for swine producers. The differences that existed between the groups for understandings needed and possessed were .5 for the beef producers, 1.6 for the sheep producers, and .8 for the swine producers.

The differences between overall mean scores for competencies needed and possessed were .6 for the beef producers, 1.0 for the sheep producers, and .2 for the swine producers.

Comparisons among groups showed the following differences between the total overall mean scores for competency needed and possessed: (1) Younger livestock producers had wider differences than older livestock producers. (2) Livestock producers with fewer years of experience had wider differences than those with more experience. (3) Sheep producers with more formal education, had wider differences, whereas beef producers with less formal education, had wider differences. (4) Increased years of vocational agriculture tended to decrease the differences. (5) Men without training in livestock production in young farmer, adult evening class or veterans on-farm training had wider differences than those who had had such training. (6) Those with the smaller size of livestock enterprise tended to have the wider differences, except in the case of sheep producers where the reverse was true. (7) Producers who had grade and combination livestock tended to have wider differences than purebred and crossbred producers.

Correlations were found between age and years of farming experience (+) and age and years of vocational agriculture (-), years of farming experience and educational level attained (-). In beef marketing, both age and years of farming experience were correlated with scores for the degree of understanding needed of county, state, and national beef promotional organizations. One competency was found correlated with a control factor in sheep marketing; it was the age of the farmer with scores for understanding needed of livestock loss and factors effecting such loss (+). Four control factors were correlated with competencies needed in swine marketing. They were age of farmer and years of farming experience with scores for the ability needed to select the market which gives the best return.





When scores for the degree of competencies needed in 18 selected competencies were correlated with the scores for the competency possessed in the same 18 competencies, four were found to be significant at the 1 percent level and five were significant at the 5 percent level.

There seemed to be a high positive correlation between scores for the abilities needed to do a good job of buying and marketing lambs, to understand consumer demands for lambs, to evaluate the carcass of lambs, to estimate market of hogs, and to figure returns above costs with number of hogs marketed.

### Implications

There were 23 competencies selected as being needed for success in beef marketing, 25 in sheep marketing and 19 in swine marketing. It is important that these 67 competencies be considered carefully in planning training programs for present and prospective beef, sheep and swine producers. They should form the basis for livestock marketing instruction in vocational agriculture classes for high school youth, for young farmers; and for adults; in the cooperative agriculture extension program; in area vocational schools; in junior colleges with post-high school programs in off-farm agricultural occupations; and in the College of Agriculture resident instructional programs.

These competencies should be emphasized in providing in-service training for present livestock producers. In-service training should be offered specifically in vocational agricultural departments, in the cooperative extension programs, in area vocational-technical schools, and in junior colleges offering training in off-farm agriculturally related occupations. This training would greatly improve the efficiency of livestock producers, improve their ability to market more efficiently, and produce the amount and quality of livestock products available to consumers.





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