

unable to construct and use tests that will facilitate the student's academic progress. Indeed, instructor-made tests may reveal the instructor's self-perceptions as few activities do. Why not construct exams that students will regard as difficult-but-fair and why not use exams in such a manner that students will find them beneficial?

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## A FORWARD LOOK

# Teaching Farm Management in the 1980's

J. H. Herbst

This was a challenging topic for a farm management teaching seminar because it required a look ahead to see how we would adapt to a changing world. The program section entitled, "The Need for New Texts in Farm Management," suggested polling colleagues over the country for their views on changes taking place in farm management teaching.

Survey forms were sent to 30 agricultural economics departments over the USA, with 3 copies per envelope. All of the departments, except two, were in Land-Grant institutions. Department heads were asked to give the questionnaires to persons in charge of undergraduate farm management courses. No attempt was made to define such courses; for example, farm financial management may be part of a farm management course, or it may be a separate course.

Questions on the survey form mainly related to: (a) courses in economics and agricultural economics previously taken by the typical student, (b) major topic areas in which the instructor was preparing materials of his own (and whether these areas could be adequately covered in a text), (c) topics in Farm Management that should receive more emphasis in the next ten years, (d) other trends in teaching, as related to methods, etc., and (e) additional comments.

Thirty-three instructors sent in returns, in some cases for more than one course. An attempt was made to separate the courses into beginning or advanced undergraduate courses. The "beginning" group also included general courses with a clientele of majors outside of agri-

cultural economics. It is granted that advanced courses may go into more depth in the same topic areas.

Information was obtained from instructors of 35 courses, 23 of which appeared to be in the "beginning or general" category. However, for almost all of the courses, students typically had courses in Introductory Agricultural Economics or Economics previous to taking the Farm Management Course. Often the Economics was a "principles" course, many times specifically "micro-theory." Apparently, many instructors feel as some of us at Illinois — that principles need to be repeated and reviewed, that you don't learn all about them in one course,

Table 1. Topic Areas Reported as Currently Taught in Beginning Farm Management Courses 1/

Topic Area	No. of course outlines
Economic principles applied to farm management	15
Budgeting	13
Crop and livestock decisions	13
Decision-making process	12
Financial management	12
Farm records and record analysis	11
Labor management	11
Machinery investment or management	9
Acquiring inputs	9
Risk and uncertainty	6
Forms of business organization	6
Income tax management	5
Farmstead arrangements and buildings	4
Farm size	4
Farm leases	4
Estate planning	2
Linear programming	2

1/ Responses from 23 instructors; numbers shown are for the 15 courses in this group for which course outlines were included. Topics not included unless mentioned in 2 or more course outlines.

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and that the farm management area often has different applications than generally found in Economics courses.

#### Topics currently taught (beginning or general courses)

Since one objective was to find areas where textbooks are deficient, the corresponding question on the survey form related mainly to topics for which the instructor was preparing materials of his own. However, course outlines were included with a majority of the forms returned (see Table 1). The teaching of **economic principles** as applied to farm management was mentioned on all 15 "beginning course" outlines received. A rather heavy reliance for carrying out the teaching of principles is placed on farm management texts. (See Appendix for a list of texts and major references reported on course outlines, both for the beginning and advanced courses.)

**Budgeting** was mentioned 13 times; the same was true for **crop and livestock decisions**. The **decision-making process** and **financial management** were each mentioned 12 times. **Linear programming** and **estate planning** were each mentioned only twice for the beginning courses.

Areas for which the instructors were preparing materials of their own, either as a replacement for or a supplement to texts, are shown in Table 2. Although heavy reliance was placed on textbooks for teaching **economic principles**, 8 of the 23 instructors reported using handouts for this topic. Six of the 8 responses suggested that state or local applications were needed to make the information most meaningful. **Budgeting** was mentioned 12 times and **farm records** and **financial management**, 9 times each. Again, the responses often suggested that handouts with state or local information, or for case farms, would be desirable as a supplement to textbook information. One respondent seemed to sum up the ideas expressed by several when he said that a wide variety of problems, exercises, and exams is needed.

**Linear programming** was mentioned twice but **decision making under uncertainty** and the use of **farm management games** only once each. This suggests that either instructors feel textbooks are adequate for these areas, or the areas are not covered frequently in the beginning courses.

#### Topics currently taught (advanced courses)

Course outlines accompanying 10 of the 12 survey forms for advanced courses showed a higher percentage of these courses covering the **use of the computer**, **linear programming**, **risk and uncertainty**, **income tax management**, and **acquiring inputs** than was true for the beginning courses. Topics reported relatively fewer times for the advanced courses were the **decision-making process**, **economic principles**, **farm budgeting**, **crop and livestock planning**, and **farm records**.

Topics for which the instructor is preparing materials of his own (Table 3) seem consistent with what was previously said about the use of the computer, acquiring inputs, linear programming, and risk and uncertainty being taught relatively more in advanced courses,

Table 2. Topic Areas for Which Instructor is Preparing Materials of his Own 1/

Topic area	Times mentioned	No. saying topic cannot be adequately covered in textbook
Budgeting	12	9
Farm records and record analysis	9	5
Financial management	9	4
Application of economic principles	8	6
Income tax management	7	2
Crop and livestock decisions	5	3
Forms of business organization	4	3
Marketing information	3	—
Gaining control over resources	3	1
Cash flow planning	2	1
Break-even analysis	2	—
Farm leases	2	1
Linear programming	2	1
Firm growth	2	1

1/ Responses from 23 instructors of beginning or general farm management courses. Topics not included unless mentioned 2 or more times.

with economic principles per se and record keeping being taught less.

Here again, a number of instructors mentioned that state or local adaptations would be needed to supplement textbooks and that teachers need to use handouts adapted to their areas.

#### Topics to receive more emphasis in next 10 years

Many topics were listed for this category (see Table 4), but there was not as much consensus as one might expect. The open-endedness of the questionnaire may have been a factor.

**Beginning courses.** Under this heading, **financial management** was mentioned most frequently, 8 times, besides 3 other items following in the table that were closely related. The **use of the computer** was second in number of times mentioned. Computer-assisted record

Table 3. Topic Areas in Which Instructor is Preparing Materials of his Own for Advanced Courses 1/

Topic area	Times mentioned	No. saying topic cannot be adequately covered in textbook
Land and capital acquisition strategies	5	2
Financial management	4	2
Income tax management	4	2
Computerized decision aids	3	1
Business analysis	3	1
Linear programming	2	—
Risk and uncertainty	4	2
Size and growth decisions	3	1
Selection of livestock technology	2	1
Management of large farms & prof. management	3	1
Machinery decisions	2	1
Labor management and supervision	2	0
Marketing and outlook information	3	2

1/ Responses from 12 instructors of advanced farm management courses. Topics not included unless mentioned 2 or more times.

Table 4. Topic Areas in Farm Management to Receive More Emphasis in Next 10 Years 1/

Topic area	Times mentioned
<b>Beginning courses 2/</b>	
Financial management	8
Cash flow planning	3
Estate tax management	3
Income tax management	3
Use of the computer	7
Farm budgeting	5
Personnel management	5
Risk and uncertainty	4
Marketing as related to management	4
Forms of business organization	3
Environmental considerations	3
Decisions relating to weather	3
Business analysis	2
<b>Advanced courses 3/</b>	
Risk and uncertainty	7
Financial management	5
Computerized decision making	4
Marketing and purchasing decisions	3
Firm growth	2
Decision theory	2
Labor management	2

1/ Items not included unless mentioned 2 or more times.

2/ Responses from 23 instructors of beginning farm management courses.

3/ Responses from 12 instructors of advanced farm management courses.

systems, physical inventory, and planning or programming were all mentioned in relation to computer use. **Environmental decisions** was mentioned only twice, but the topic is surely becoming more important in farm management.

**Personnel management** is another topic becoming more important in this field. With larger farms, more is at stake along the lines of "human relations" when the farmer buys and sells, manages hired labor, or deals with the landlord. Curricula in business management generally include more psychology courses than those in farm management. In addition to our students having a course in psychology, we may need several weeks' coverage of human or labor relations in a farm management course or in a mini-course specifically taught for this purpose.

**Advanced courses.** For instructors of these courses, 12 of the 35, there were 7 responses for **risk and uncertainty**, 5 for **capital investment or financial management**, 4 for **computerized decision making**, and 3 for **marketing and purchasing decisions**. **Decision theory**, **firm growth**, and **labor management** were each mentioned twice.

#### Expected teaching trends in next 10 years

**Beginning courses.** The trend most often reported (by 6 respondents) was **more nonfarm students**. Next was use of **game theory and simulation** with 6 responses. **Greater use of the computer** in general was mentioned 3 times, **larger classes** and **self instruction**, 3 times each, and **improved decision making for small farms**, twice. Other comments were reported only once; examples are

use **slide presentation instead of field trip**, use **work study or internship program**, greater use of **practitioners in classroom**, more **problem-oriented teaching**, **team teaching**, more **emphasis on financial aspects with less on technical aspects**, and **teaching farm management as an interdisciplinary course**.

**Advanced courses.** For this group, **computer simulation games** received top mention, with 5 responses. Again, the **general use of the computer** received additional mention 3 times. **More urban students** came up again in this context, as did **more classes**. Perhaps the latter item was related to the idea of more **mini-courses**. Examples were **beef cow economics**, **forage economics**, **labor use and management**, and **linear programming**. A **shift from production decisions to money decisions** was again mentioned. The remaining items under this heading were mainly related to **diversified instruction techniques**, such as **games**, **case studies**, **farm visits**, and **computer-assisted instruction**.

#### "Other comments" reported

Under this heading, the use of **supplementary handouts** was mentioned 6 times. **More use of laboratory problems** was mentioned 3 times, and **developing production coefficients for local areas** came up twice.

Two persons mentioned that new texts were needed, one each under the "beginning" and "advanced" headings. Two others said they were in the process of preparing texts of their own. The number of times that handouts for local areas was mentioned points out the problems in writing a text that satisfies the needs of instruction over a wide area or even among different countries.

Most of the remaining comments were related to the diversity of students coming into our classes. One person said that a special course was needed for urban students, and another said that we may need a course specifically for students interested in operating farms.

The final point in this connection relates to the need for exchanging teaching materials and ideas among instructors. Many of us learned a great deal a few years ago when we had a comprehensive review of all courses in the department. At least we found out a little more about what each other was doing.

We do not seem to exchange ideas among institutions nearly as often as desirable. Perhaps the Farm Management instructors should get together in groups more at national and regional meetings and talk "shop."

#### Conclusions

From this study it appears that such topics as the decision making process, economic principles, records and analysis, and budgeting will continue to be of at least as much importance as presently in our beginning courses. However, more emphasis will be placed on various aspects of financial management, cash flow projections, and income tax management.

While the survey form did not specifically ask where less emphasis will be placed, the answer seems to be on production techniques. The financial aspects of these techniques will receive more emphasis.

Some of the beginning courses will rely more on the computer for management analysis and linear programming in the future. Risk and uncertainty will also be included more in these courses. However, these topics will receive still more emphasis in advanced courses.

I wish to make a case for teaching such basics as record keeping and budgeting initially by the use of "hand" methods to provide a sound background. If we don't provide students with these skills, I fear we may end up like the "poorly prepared in arithmetic" student when the calculator batteries run down! Although use of computers will increase, they cannot supply all the answers.

Advanced courses will put more emphasis in the future on the areas of financial management, firm growth, risk and uncertainty, and marketing as it relates to management. The computer will be used more and more in linear programming, simulation, and general problem solving. Business organization, estate planning, and personnel management will also receive considerably more emphasis.

Parts of courses will need to cover professional farm management problems more than is true for many institutions at present. Also, more attention will need to be given to such areas as management of small farms, management of large family farms and corporate operations, and problems of landowners.

Several survey respondents mentioned more diversity of students, such as between urban and rural, educational backgrounds. Apparently no one said, "More girls in class and in the field." We are finding more girls in our agriculture courses at the University of Illinois, in agricultural economics, as well as in other areas. With emphasis at the national level in eliminating sex bias in education, surely we will see more women in farm management in the 1980s.

I see our area as more diverse rather than less in the future. We may need mini-courses to handle some of this diversity. The clientele are there; it is up to us to meet the demand for knowledge and abilities in the area of farm management, in line with the resources we have available.

(Mr. Paul Ruesink, graduate student in Agricultural Economics, assisted with summarizing the results.)

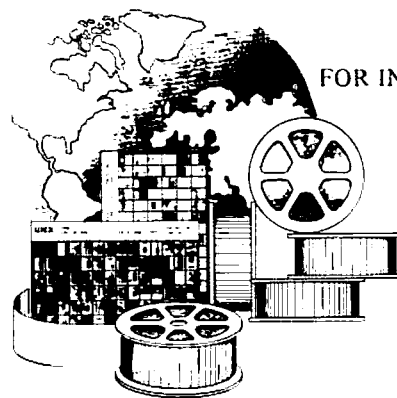
## APPENDIX

List of books shown on course outlines as texts or major references

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