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CHANGE IN VOCATIONAL AGRICULTURE

CLIFFORD L. NELSON

Dept. of Agricultural Education, University of Minnesota

Vocational educators, especially those of us in vocational agriculture, are more and more in the public eye. The advent of extensive new funds for vocational education will mean we will have to be ready to answer questions that should be constantly asked in any profession. We should ask these questions first and have suitable answers or programs to seek the answers underway. If we are to survive as a dynamic profession we must be able to look at ourselves critically and objectively.

Carroll P. Streeter, Editor of the *Farm Journal*, asked the following questions last year. "What would be wrong with an agricultural department in a rural high school offering the freshman and sophomore years basic courses that anyone claiming to be educated should know something about? Shouldn't everyone know something about the plant, animal, and soil resources on which we depend for food? Shouldn't everyone know something of what farmers do and where they fit into the scheme of things in this country? . . . Then for those boys who intend to go into farming why not provide a course of study in agricultural techniques? Such boys can use these but there is scarcely any need of trying to load these onto students who never use them."¹

Have we really considered the implication of the above comments? If we are not aware of the changes that will be taking place we will be left behind. We must be among those making the changes—we must be ready to provide the leadership for vocational education and vocational agriculture in particular. Vocational agriculture cannot be guilty of teaching obsolete skills or offering courses that are out of step with today's agriculture or we threaten our viability.

Traditionally vocational agriculture has been the leader in educational innovation. But where has the innovation been during the last 20 years? We have been self-satisfied with a program that was successful

two decades ago and "why change something that is still going pretty well?"

The *Missouri Vo-Ag Teacher Service Letter* recently quoted an educator who said, "Curriculum revision is a fine thing, we revised ours about 15 years ago with very satisfying results."² This statement typifies the state of complacency that is to be found in some areas of our profession today. We cannot afford to allow time to pass us by and not find us ready to make the needed changes and institute the needed innovations.

Agriculture is not alone in being considered ripe for change. The whole field of vocational education has been under scrutiny during recent months. In the government report "Social Dyanmite" it was stated that "some criticism has been directed toward vocational schools because their programs do not adequately satisfy the needs for skills in our modern society and economy."³

Possibly one of the strongest mandates for change of vocational courses of study came from the 1963 report of the National Council for Children and Youth. This report suggests that, "Exploratory courses should be emphasized since boys are not capable of making a real vocational choice until after grade 10 and the curricula should be designed to allow students to take units of work (of 6 weeks duration) not mandated by state law."⁴

Implications for Change in Vocational Agriculture

Many of the time honored activities in vocational agriculture have been questioned in recent studies. Paul Hemp found in his study of Illinois agriculture instructors that one third of the 100 men polled favored the outright elimination of crop and poultry judging and of grain and poultry shows.⁵ Do we have similar thoughts in other states? Have we really been lis-

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THE STAFF

HARRY KITTS GORDON SWANSON
R. PAUL MARVIN STANLEY NELSON
MIL O J. PETERSON, *Editor*

tening to the thoughts of our own colleagues?

Do we spend time on activities that have lost or have questionable educational value? Bayley, in the U.S.D.A. study of *The Importance of Dairy Cattle Breeding and Management* found a correlation of only .08-.19 between dairy cattle type and production.⁶ Thus, he casts a great deal of doubt on the efficacy of dairy cattle classification as an educational activity that has definite application to the measurement of milk production. Bayley's study was reported in 1960, yet have we discussed the implications of this finding and its relationship to the amount of time spent in extra-curricular and classroom activity?

Numerous studies in the farm mechanics area have shown possible weakness both in preparation of teachers and in course content of various agriculture departments. Two mid-1950 studies in Pennsylvania found that both graduate and under-graduate college courses did not emphasize farm power, machinery and electrification adequately in teacher preparation.^{7,8} A Michigan State study pointed up the fact that teacher preparation in forge, sheet-metal, painting and related wood work abilities were the least valuable in the teaching field.⁹

J. D. McComas found in 1960 that Ohio agricultural teachers spent 75 days on carpentry as opposed to 71 days on farm power and machinery in their 4 year courses of study.¹⁰ Is this where our modern farm shop emphasis should lie?

Even where the agricultural departments do offer instruction in farm machinery and modern rural power practices there seems to be some re-evaluation going on. A Purdue study showed that vocational ag-

riculture instructors and farm mechanics experts know less about actual farm practice than do machinery dealers.¹¹

Difficulty of tasks performed in the shop has been questioned by studies at Clemson and Tennessee.^{12,13} A survey of machinery dealers, young farmers and adult farmers indicated that the most difficult jobs that should be attempted were; radiator cleaning, point replacement, carburetor adjusting and steering gear adjustment. Time spent on machinery repair was questioned when it was shown that farmers prefer to sell "worn out" machines rather than repair them.

These studies cover only a few areas in agriculture but they do indicate the need of constant evaluation and inspection of our own programs to see if any deficiencies exist. When these problems are isolated, action can be taken to correct or alleviate the same.

Implications for Change in Vocational Education

Is the same thing happening all over the nation? "You can go into different cities in the same state and find almost anything being taught. . . In one case the total program was auto mechanics of the grease monkey variety and in the other the program was 1915 manual training woodworking."¹⁴ This was said about industrial arts. Are we exempt from the same criticism?

Home economics has been having difficulty maintaining currency in their courses of study. Louise Lemmon's study of Illinois curriculums showed, even though course objectives of home economics had changed from home production training to consumer education, that only an average of 3% of the time was spent on consumer education. This study also found when a test of consumer knowledge was given to 1st and 3rd year students that there was no significant difference in knowledge between the groups.¹⁵

Recommendations

We must inquire of ourselves and seek to find answers to these questions. These are not the only questions we must ask as a profession but only a representative few.

We must ask:

1. Do we have dynamic experimental curriculum development?
2. Do we change or "grow" quickly

enough to meet the needs of new technological advancements?

3. Do we teach obsolete skills in our classes?
4. Have our individual teaching methods changed since leaving college?
5. Do we have an obligation to ourselves and/or to the profession to see that a neighboring agriculture teacher is not "short-changing" his community?

1. Do we have dynamic experimental curriculum development? This question must be asked constantly in vocational fields. These curriculums must be under change at the same pace that the jobs they train for change. This evolution and development must be continuous and constantly available as retraining needs emerge.

2. Do we change or "grow" quickly enough to meet the needs of new technological advancements? The answer to this question measures the quality of a vocational program. Although the training in the classroom and the laboratory might be excellent, the objectives must be to train for today's and tomorrow's needs, not yesterday's. If vocational education doesn't accept the challenge someone else will. We have the skilled instructors and many of the needed facilities. Will we remain sedentary or will we be ready for tomorrow?

3. Do we teach obsolete skills in our classes? If we do teach obsolete skills we are sounding the death note for vocational agriculture and vocational education in general. We can't be guilty of this or we will truly deserve the criticism leveled at us by the "detractors of agricultural abundance" — not for doing too good a job, but for doing it at all.

4. Have our individual teaching methods improved or changed since leaving college? Have we grown with the profession? Have we kept up with technical advances in agriculture? Have we profited from the new findings in educational psychology and audio-visual technology? Have we made it a point to take part in further graduate work or in-service training? Have we contributed to the field of knowledge in our profession? If we can say yes to all of the above there is no reason for conjecture. If we can't say yes — we are not truly professional and vocational agriculture will suffer.

5. Do we have an obligation to ourselves or to the profession to see that a neighboring agriculture teacher is not "short

changing" his community? We must answer this question in the affirmative. We must seek improvement and change constantly in our own programs and in the programs of others. We must be willing to encourage our colleagues to improve also. If a fellow agricultural instructor does not offer a complete program that fits the needs of his community, we all suffer. Vocational agriculture's image and the image of the whole field of vocational education rests on the shoulders of the teachers in every community in the nation.

Conclusions

Hill and Tom stated in 1962 that "in regard to course content, vocational education should be primarily concerned with providing those specific knowledges, skills, attitudes and abilities required to perform the duties and responsibilities of given vocations. Most, if not all the subject matter, must be directly related to efficient job performance."¹⁶ The U. S. Department of Labor stated in 1963 that, "in view of the large movement from rural areas to urban centers a real need exists for training towards jobs which many rural youngsters will eventually seek to occupy."¹⁷

"Curriculum and instructional methods should be brought up to date as quickly as occupations change and teaching methods become more effective. In vocational education a national plan for coordinating curriculum and materials development has been implemented too slowly... In theory vocational education reacts quickly to changing occupational needs; in practice there is much to be desired... The schools do not readily add new programs although vocational education, in theory adjusts automatically to changing occupational environments... Automation and mechanization will make many skills obsolete with little if any transfer to a new occupation."¹⁸

"We are told that agriculture has made more progress in the past 10 years than was made in the previous 100 years... Some of us may still be teaching vocational agriculture when the population has doubled. Will we be ready and willing to meet the challenge?... In-service training is part of the answer... And so in the final analysis every teacher must assume the responsibility of keeping himself competent (and course of study up to date)... In fact it becomes increasingly urgent as our technology advances."¹⁹

And as Carroll Streeter said, "Our first job then, whether we are teachers or farm magazine editors, is to realize that agriculture is a growth industry (and we and our programs must grow with it), not some shrinking kind of apple — then to help other people realize it."³

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