of the tail were taken. Three lengths were selected, viz., short, medium, and long. The chilled carcasses were again measured for length. The carcass length averaged about four inches shorter than the live hog measurements.

A Few Conclusions from the Last Test

After all of the rigid selection to get the 54 hogs they varied from $10.52 to $12.44 in their cut-out values. Within certain limits there seemed to be very little correlation between the length and cut-out value.

There was very little correlation between dressing per cent and cut-out values.

The less middle girth, the higher the cut-out value up to about 210 pounds; from there up the charts varied considerably.

The larger the heart girth the higher the cut-out values.

The previous tests reported in this paper agree very largely with the above conclusions.

METHODS OF TEACHING ANIMAL HUSBANDRY TO COLLEGE STUDENTS

By Fred S. Hultz

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Any discussion pertaining to instructional methods may be approached from at least four viewpoints, namely:

- Selection of material.
- Organization.
- Presentation.
- Follow-up for results.

Selection of Material

The selection and the organization of subject-matter are closely allied to its presentation in the classroom. Sources for selection of material are, no doubt, quite similar for all teachers of animal husbandry, and it is taken for granted that instructors do include the latest proven investigations and practices in their classroom material. With the advent of
Smith-Hughes and 4-H club work it might seem desirable to eliminate some of the more elementary features from beginning college courses in order to avoid repetition. It is perhaps best, however, not to take too much for granted from vocational agriculture students. In at least some high school courses the subjects in agriculture are so very elementary as to benefit the student only as a demonstration that there is a specialized field of technical agriculture. These subjects appear to be patterned mainly for those students who will not later go to college. Then, too, there exists a growing belief that the so-called vocational agriculture subjects usurp the time of high school students to a degree harmful from the standpoint of college preparation. At least two of our important land grant colleges have recently ruled to accept not more than four hours of vocational agriculture toward college entrance, the purpose of this move being to insist upon better preparation in the basic sciences rather than in vocational practices. If the agricultural college is to be something more than an advanced vocational institution, there would seem to be considerable justification for this viewpoint. Since the subject of this paper is, however, methods of teaching rather than curricula further digression can not be made here:

**Presentation**

The organization of classroom material must depend to a certain degree upon the method of presentation followed. It has been held by educators that the lecturing system is not only out of date but inefficient as well, and that the “direct question” examination is not only unfair but inadequate as a test of knowledge. An uninteresting lecture is certainly the last word in undesirability, but it is possible that lectures can be made not only informational but inspiring as well, and for that reason may have a place among useful presentation methods. Many of our successful graduates have first become interested in the romance of the livestock business through their instructor’s judicious use of the lecturing system. This romantic interest has later developed into a more permanent sort. There may be no definite place in our curricula for a course entitled “At the Sign of the Stock Yards Inn,” but more of Mr. Sanders’ type of material included in our courses in breed history—more of the historical romance of obstacles
overcome by both breeders and scientists—should produce a student state of mind more likely to result in satisfaction, success, and constructive accomplishment for those students later as livestock breeders. The teaching of the strictly business side of animal husbandry is, without doubt, receiving the emphasis it deserves, but we wonder how many teachers in breed history courses pause to mention such anecdotes as that which has Amos Cruikshank say, when Queen Victoria visits his herd, "Cicely meet the Queen." Many of the names of families established and hardships overcome by Cruikshank may soon be forgotten by students, but his attitude toward livestock breeding is summed up for them in that one anecdote in an unforgettable manner. He loved his cattle above his Queen. Not very scientific perhaps, but excusable from the standpoint of its use as a teaching method employed to gain and hold student interest.

Livestock Equipment

In the bustle of competitive livestock showing by the colleges one valuable adjunct to teaching may have been overlooked. Pride in achievement is the greatest of prides. If students are made actually to feel a part ownership in the college flocks and herds, if they are made aware of the breeding plans and are made to feel proud when those plans result in the production of show yard winners, another great inspirational teaching aid has been accomplished. My point is that animal husbandry teaching may be made warm and personal as well as statistical and exacting.

Art as Well as Science

The teacher in animal husbandry is dealing with a combination of art and science. He is not only teaching scientific facts but is supposedly also drawing upon the experiences of practical stockmen for much illustrative material. Certainly the teacher is presenting the results of try-outs of research at the hands of stockmen. Investigators in the field of agricultural economics have been developing the survey method for utilizing the best practices of successful stockmen, practices which are the result of both art and science. The facts from these surveys are used as classroom material. Agriculture, therefore, may present a unique situation to the
teacher. Something more is demanded than a presentation of formula or the retailing of scientific conclusions. The enthusiasm which must imbue every successful artist must be imparted by the agricultural teacher as well as established scientific facts. This enthusiasm is, unfortunately, not always associated with a teacher’s knowledge of his subject-matter. The best informed may occasionally be poor teachers through lack of enthusiasm or through failure to recognize the importance of one or more of the four viewpoints mentioned at the beginning of this paper.

A Sound Start

In the presentation of elementary material there may be a tendency toward too much brevity, the taking of too much for granted. In such elementary subjects as freshman judging, a right start may so orient the beginner that he has a definite objective from the outset. It is possible with beginning students to engender sympathy toward the work, confidence in the instructor, and a genuine desire for information. At the first class meeting the instructor, with a few carefully chosen words, may accomplish this purpose. He may point out the basic place and importance of judging in the animal husbandry profession. He may indicate that a judge must not only know and be able to see market or breed type, but must also possess the ability to balance points so as to arrive at a judicial conclusion. He may affirm that utility is the only sound basis for livestock judging, a basis never to be lost sight of; and he may sum up by explaining how rings of animals are used for the purpose of enabling a student to arrive at standards, to distinguish the good from the bad, and finally through knowledge and experience to reach a point where accurate judgment is possible.

The above remarks are not meant to serve as a pattern, but rather to indicate a line of attack. Briefly, a teacher must first “sell” a course to his students; he should then point out how best results may be obtained as the course progresses; and third, he must arouse sustained interest in the subject-matter, interest which will endure not only while the course is being taught, but on through the years.

Much of a teacher’s success must depend upon his own enthusiasm. Unfortunately, the teacher’s enthusiasm appar-
ently wanes in proportion to years of service. In an extensive
study of chemistry instruction made by a special committee
from the Association of Land Grant Colleges it is reported
that "in general one's teaching efficiency during the first ten
or twelve years is highest, and after that there is a tendency
for it to gradually decrease." Knowing this general situa-
tion to exist, the more experienced teacher may guard against
it by keeping in touch with modern developments in his field
and by using special care in the selection of teaching mate-
rial. It is interesting to note from this same report that
教学 efficiency was in inverse proportion to collegiate
rank, and that the academic degree held in these cases seemed
to have little effect on a teacher's efficiency.

The most efficient teacher in the study reported above was
an instructor with two years of experience, but likewise the
least efficient was also an instructor with just two years of
experience. These findings might lead us to believe even more
strongly that efficient and successful instruction is a matter
of personal ability and is, in a certain measure, independent
of experience, academic rank, or even advanced degrees. Cer-
tainly the method of imparting the information to students
becomes insignificant in comparison with a teacher's ability
to give of himself as well as of his knowledge in meeting
classes.

THE VALUE OF PERSONAL CONTACT BETWEEN
INSTRUCTOR AND STUDENT

By H. H. Kildee

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I am delighted that the president of our association and
his program committee have seen fit to devote this time to
the consideration of the teaching of animal husbandry. The
education of those who are soon to be the leaders in thought
and action is one of the most important considerations which
has ever come before this association. I am fully appreci-
ative of the valuable, constructive work which has been and

1 42d Annual Report Association of Land Grant Colleges, p. 458, 1928.