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WHY RECORDS SHOULD BE KEPT ON DAIRY HERDS

Ernest Bailey, teacher of agriculture, Bertha, writes that: "I have one boy, Elmer Froehlich, who has just completed what I think is a very good piece of farm practice work with his father's dairy herd. I have asked him to write a summary of the work which he has been doing for the past year. I am going to send you a copy of this summary, and you may use it as you see fit in passing it on to others. This boy has worked out in detail practically every factor that one could consider in a cost account record. He has had splendid cooperation from his parents, and both he and his parents have cooperated very nicely with me in working out this cost account record. They are all thoroughly 'sold' on the 'dairy feeding' proposition. They have never been able to get their labor income to run above 35 cents per hour until this past year. A jump of 20 cents per hour has put considerable enthusiasm into both Elmer and his father. They are carrying their records right through for another year, and hope to accomplish much better results than they did in 1928."

The following is the interesting story told by showing his work with the dairy herd on his home farm. THE VISITOR agrees with Mr. Bailey that this represents a very good piece of farm practice work.

"While I was taking a course in vocational agriculture last year, my instructor visited my home and pointed out the advantages of keeping a cost account record on my dairy herd. This interested me because we had never done anything of that kind with our dairy herd. My father consented to let me keep a cost account record on our entire herd of dairy cows provided it would be done in connection with my course in agriculture.

"Our herd consisted of twelve grade milking shorthorn cows, and one grade dutch belted cow. The shorthorn cows were bred up from common scrub cows by using a pure bred bull. The dutch belted cow was bought at a sale about two years ago.

"This enterprise was selected for my cost account records for five reasons, namely:

First: to prove to myself whether a balanced ration is more economical

for dairy cows than just a common ration such as we had been feeding. Second: to weed out the unprofitable cows, if there were any in our herd. Third: to determine the butterfat production, feed cost, and net profit or loss of each cow in the herd.

Fourth: to determine the labor income for each cow in the herd, and for the entire herd, and

Fifth: because I like to work with dairy cattle better than any other enterprise on the farm.

"Our home grown feeds were oats, alfalfa, and wild hay. We bought International Dairy Ration to furnish a protein supplement. We also bought some bran during the year. For a succulent feed we used corn silage. With these feeds, I balanced a ration to fit the needs of each of the thirteen cows.

"Each cow's milk was weighed night and morning, and a composite sample of each cow's milk was tested at the beginning of every month. The amount of each kind of feed in the ration was weighed frequently, and the total amounts and costs were recorded for each cow at the close of every month.

"I began my cost account records on October 1, 1927, because most of our cows freshen during the first part of October, and I wanted to get their records for the entire lactation period.

"During the winter months the barns were thoroughly cleaned every day, and the cows were kept bedded well with clean straw. When the weather was nice we let the cows outside for 10 to 15 minutes each day for exercise. My father had recently installed drinking cups in the barn, and our cows had an abundance of fresh water before them at all times.

"We formed the habit of brushing and currying each cow in the barn at least once every day during the winter months. This was my idea, and if it did nothing more than to make the cows easier to handle I felt well repaid for the time spent.

"During the fourth month (January) one of the shorthorn cows developed garget in one quarter of her udder causing the loss of that quarter. Her record up to that time was not very good so we shipped her. The other twelve

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THE STAFF

A. V. STORM
A. M. FIELD
L. E. JACKSON

D. D. MAYNE
F. W. LATHROP
V. E. NYLIN

were kept through until the close of the lactation periods.

"When my records were completed, I found that the dutch belted cow had the highest butterfat record of the twelve. She had produced 521.4 pounds. The lowest record of 151.6 pounds was made by a 2-year-old heifer. One other two-year-old heifer, and one mature cow produced less than 166 pounds each. The other eight cows produced between 238.1 pounds and 373.8 pounds each. It is needless to say that my father was willing to dispose of the boarder cows.

"The total feed cost per cow ranged from \$56.00 to \$87.10. After crediting each cow with her skim milk, manure, and calf; and after deducting for interest, depreciation, sire service, and other miscellaneous and unclassified items I found that we had a net profit ranging from \$23.50 to \$195.92 per cow. Our labor income ranged from 13 cents per hour from the poorer cows to \$1.15 per hour from the best cow.

"During the year, October 1, 1927, to October 1, 1928, these 13 cows produced 87,454 pounds of milk containing 3,483.1 pounds of butter fat which brought us \$1,907.40. After deducting \$738.10 for the cost of feed we had a balance of \$1,169.30 for our labor. These 13 cows required a total of 2,100 labor hours during the year, and returned us an average of 55.6 cents per hour for our labor.

"By keeping this set of records I have learned many more things than I had hoped to learn, especially about feeding dairy cows. I see now what can be done by giving cows proper care, feed and management. I shall not stop with what I have learned during the past twelve months, but I shall make a greater effort to increase our net profits, and to raise our labor income next year above what it was this past year by continuing to weed out the low producers, and to practice still better feeding methods."

A. M. F.

ADULT LEARNING

Many teachers of agriculture in attempting to provide evening school instruction for adults encounter an "I am too old to learn" attitude on the part of many of the persons who are eligible to enroll for evening school work. A recent book by Dr. E. L. Thorndike on "Adult Learning" presents some facts concerning the learning abilities of adults that should have considerable significance to any one interested in adult education in any form. The data presented by Dr. Thorndike indicate that mature persons can learn as well, if not better, than they could when young. The apparent lack of ability to learn is due to lack of continued exercise of the learning processes rather than to an actual decrease in ability to learn.

The following quotations taken from Chapter XIII, "Practical Applications" have implications of great importance to teachers of agriculture.

"In general, nobody under forty-five should restrain himself from trying to learn anything because of a belief or fear that he is too old to be able to learn it. Nor should he use that fear as an excuse for not learning anything which he ought to learn. If he fails in learning it, inability due directly to age will very rarely, if ever, be the reason. The reason will commonly be one or more of these: He lacks and always has lacked the capacity to learn that particular thing. His desire to learn it is not strong enough to cause him to give proper attention to it. The ways and means which he adopts are inadequate, and would have been so at any age, to teach him that thing. He has habits or ideas or other tendencies which interfere with the new acquisition, and which he is unable or unwilling to alter. In the last case mere age may have some influence. A person's gait, posture, speech, and the like are acquired very early in life. They condition later acquisitions, and they may to some extent impose inescapable limitations.

"In general, teachers of adults of age 25 to 45 should expect them to learn at nearly the same rate and in nearly the same manner as they would have learned the same thing at fifteen to twenty. What that rate and manner will be depends upon the general intelligence and special capacities of the individual. Men and women of the dull half of the population will not at any age learn after the fashion of high-school pupils, who are, almost without exception, from the bright half. Individuals in this country who leave school to go to work at fourteen are in general much duller than

those of the same community who leave at later ages. Those of them who return to study later in evening schools or correspondence schools are probably much brighter than those who do not so return, but their exact status is uncertain.

"The provision of opportunities whereby adults can learn those things which they are able to learn and which it is for the common good that they should learn is a safe philanthropy and a productive investment for the nation. When, on the other hand, wily advertisements or over-enthusiastic propaganda seduce persons to enroll in courses for which they lack capacity, or interest, or both, there is sure to be waste and disappointment. Age, in itself, is a minor factor in either success or failure. Capacity, interest, energy and time are the essentials.

"Adult education suffers no mystical handicap because of the age of the students. On the other hand, it is not freed by the nature of its clients from any of the general difficulties—of adaptation to individual differences, stimulation of interest, arrangement for economy in learning each element, and organization of the subject of study so that each element of learning shall help all the others as much as possible and interfere with them as little as possible. In particular, the argument that the adult student who takes a course voluntarily will be much more interested in study than the young student who takes it more or less by parental compulsion, so that the stimulation of interest requires far less care and skill in adult classes, is likely to be given too much weight. The adult, too, is often interested not in the day by day studying itself but in something ulterior—in the promotion, or social advantage, or self-esteem which he gains. Adult education has an obvious handicap when, as is usually the case, its students have worked through the day and so must resist the cravings to indulge in some favorite form of rest or entertainment. In individual cases it may be undertaken at great sacrifice.*"

A. M. F.

* (From Thorndike: *Adult Learning*. Copyright 1929 by The MacMillan Company. Reprinted by permission.)

EVENING SCHOOL WORK

Mr. G. A. Larson, teacher of agriculture, Pipestone, Minnesota, has organized an evening school for adults. The interest of the farmers is shown by the fact that "fifteen were present at the first meeting, twenty-two at the second, thirty at the third, thirty-two at the fourth, and thirty-seven at the fifth

meeting." The letter which follows is a copy of the one sent to about fifty farmers by Mr. Larson.

"We are going to try out a new piece of work in our Agriculture department this year; namely, an evening school for adult farmers. These evening schools are carried on successfully in other towns of this and neighboring states and with your co-operation there is every chance that it will be a success here.

"These meetings will be held at the high school on Wednesday night of each week, starting December 5 and continuing for ten weeks. The subjects taken up will be those related to the dairy industry.

"Following is a tentative outline of the subjects that will receive consideration:

1. Selecting the dairy breed,
2. Selecting the individual dairy cow,
3. Value of purebred sires,
4. Home grown and commercial feeds,
5. Feeding for milk production,
6. Minerals for farm animals,
7. Housing and equipment,
8. Care of dairy herd,
9. Care and marketing of dairy products,
10. Diseases of dairy cows,
11. Keeping records,
12. Alfalfa.

"These lessons will be followed by a general discussion. The evening will wind up with a social time and we shall try to serve a cup of coffee. Come in and bring your neighbor and help make these meetings worth while."

Evening School Students 100 Per Cent for T. B. Testing

The following material adapted from a local Grand Rapids paper indicates the nature of and the value of the evening school work carried on by G. H. Atwood, teacher of agriculture at the Grand Rapids High School.

"The Grand Rapids Vocational Agricultural Department is holding two evening schools this fall for a three months' period.

"The one at Togo is largely sheep, with a little review on dairy, because a dairy course was given last fall at Bear River, which is near Togo.

"Balsam Lake has a dairy school this fall and Dr. Dicky went out with G. H. Atwood last Wednesday evening and discussed the symptoms, dangers, and prevention of several dairy diseases. During the past three years there have been five communities in the county given a dairy course by the agricultural department and the question of diseases, especially tuberculosis of dairy cattle, was emphasized. The work given on the T. B. testing encouraged the farmers

enough so that the first two communities in the county to sign and send in the county area T. B. testing petition were from communities where evening dairy schools have been held. The other communities where evening dairy schools were held have now signed up the petitions nearly one hundred per cent."

—A.M.F.

DROPPING OUT OF SCHOOL

"The United States Bureau of Education is responsible for the statement that all boys and girls that enter the fifth grade in our public schools, 17 per cent never go beyond that grade and only 71 per cent enter the seventh year grade; 29 per cent have fallen by the wayside. Only 63 per cent enter the eighth year grade, 37 per cent have grown tired and quit school. Only 34 per cent enter high school, 66 per cent have fallen by the wayside. Only 14 per cent finish high school and get their diplomas. Only 7 per cent enter college and 2 per cent graduate. The 98 per cent that quit or dropped out are scattered all along the journey of life from the fifth grade to the graduating exercises in college but take no part in those exercises."

Reclaiming the 98 Per Cent

"What are the 98 per cent doing today? Those that are attempting to do anything are trying to do a little of everything, except that none of them has entered any of the professions. They could not enter a profession because they did not graduate from a college or university. What is to become of that 98 per cent? Some of them have, no doubt, entered some gainful occupation, but the great majority have been turned loose on the world unprepared to meet life's problems in a way calculated to build up a better civilization. Someone must look after that group. That must be done by the educators of the country or someone else responsible for a better humanity. Many of them could be brought back into school on a part-time system, where work a part of the time; complete their they go to school a part of the time and academic education and at the same time be trained to do something with their hands that would yield an income."¹

EDWARD T. FRANKS.

¹ Quoted by permission from Vocational Education Survey, State Department of Education, Iowa.

Annual Conference

The annual conference for teachers of agriculture will be held at Arcadra Park Lodge, Deer River, June 10-14.

LET THE BOYS HELP

The following quotation from a recent letter received from W. G. Wiegand, teacher of agriculture, Austin, Minnesota, has a very good suggestion for teachers who believe in having the boys help in planning the course of study. The plan looks like a good way to secure creative work on the part of the students.

"I have attempted to secure the help of the boys in the Agriculture I and II classes in building the course of study for the remainder of this year.

"We proceeded by appointing a chairman and a committee of four members to work out a course of study in each of these classes. In addition we appointed a similar committee of five members using a boy who has a great deal of experience as chairman, to direct plans for the completion of farm practice program.

"These two committees have done such splendid work and have developed interest to such an extent that I feel it is a splendid method of procedure. As we have completed our course of study, we hope to have a similar committee of five adult farmers in this community review the plans and make improvements."

A. M. F.

TEACHING HELPS

"The Gifts of Nature to America" is an interesting map sent free to teachers by the Kellogg Co., Battle Creek, Michigan.

* * *

The Blue Valley Bulletin, published monthly by the Blue Valley Creamery Co., 1137 W. Jackson Blvd., Chicago, contains interesting and valuable material for boys enrolled for instruction in agriculture. The charts used for illustrative purposes are unusually interesting and instructive.

* * *

Extension circular No. 111, 1928, Extension Division, College of Agriculture, University of Kentucky, Lexington, Kentucky, contains a number of new ideas in farm building plans and farm appliances that should be of interest to boys who are including the improvement of farm buildings as part of their farm practice work.

* * *

The Oliver Chilled Plow Works, South Bend, Indiana, has for free distribution a box containing samples of metals used in manufacturing plows. This company also has a number of motion picture reels on corn production that may be secured by teachers of agriculture. There is no charge for these reels except transportation charges both ways.

A. M. F.