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To Editors.

The University Farm Press News prepared with a sole view to the use of the matter in its columns by the editors of Minnesota papers. It has no subscription list, and is not sent to farmers. The endeavor is to fill its five columns with short articles relating to the various phases of rural life and industry—articles which every intelligent farmer will read with satisfaction, but which we want him to read in your paper, not in ours. You are at liberty to use the articles, with or without credit or name of author—as editorials or as clippings, just as you may prefer.

The Summer School.

A little forethought—a little "planning ahead"—may enable many a farmer, or his wife, son or daughter, to attend the Summer School of Agriculture at St. Anthony Park, who for lack of such forethought may be denied its privileges. The date, June 19, may seem a long way ahead; but it is none too early now to plan for the six weeks' absence from home which the school requires.

Time for Seed-Testing.

The farmer who, in these days, sows his wheat without testing the germinating power of the seed, enters into a gamble with Fortune, in which there is a fair chance that he may come out a loser. Scientific farming means the substitution of certitude for a gamble—the elimination of chance, and the planting of seed with a moral certainty that a crop will follow.

Among the in-door activities to which the weather will invite between now and seed-time, none may more fitly occupy the farmer than the careful selection and testing of the seed for the prospective "crop of 1911." Done now, the work may receive an amount of attention which it may be impracticable to bestow upon it if it is postponed until the rush of work begins in the spring; and the extra care is likely to be reflected in a larger crop.

The man who is to have the best crop of wheat next summer is the one who, among other things, this winter uses his fanning-mill to "sort out" for seed, from the bin where his best wheat is stored, the largest, densest and heaviest kernels, and who then tests their germinating power, lest appearances may be, after all, deceptive. If he finds that only 90 per cent of his selected kernels germinate, he will add enough seed to the amount he expected to sow, to compensate for the 10 per cent which will fail to grow. If the germination is below 90 per cent, or the sprouts lack vigor, he will procure other seed rather than risk getting an inferior crop.

Minnesota Bulletin No. 115 describes in full the simple processes, available to every farmer, for selecting and testing seed. If you are not already familiar with these processes, a copy of the bulletin will be sent you on application to the Extension Division, University Farm, St. Paul.

Do High Records Tend to Produce Non-Breeders?

A careful study of the advanced register of Guernsey cattle, made by the dairy correspondent for Farm, Stock and Home, brings out the following facts: There are 1,112 advanced registry records reported in the latest volume, and of this number of cows only 55 were reported not in calf at the close of their year's test, or a total of 4.9 per cent. There were 23 cows of all ages that had produced 400 pounds of butter-fat and were not in calf during their test, or a total of 2.06 per cent.

The percentage of cows, of different ages, which were in calf during the test, was as follows:

In the 5 year or above class, 93.3 per cent.

In the 4½ to 5-year class, 95.5 per cent.

In the 4 to 4½-year class, 97.7 per cent.

In the 3½ to 4-year class, 95.6 per cent.

In the 3 to 3½-year class, 94.9 per cent.

In the 2½ to 3-year class, 96.5 per cent.

In the 2 to 2½-year class, 95.4 per cent.

Putting this test on a little more scientific basis, and requiring all cows, reported as being in calf, to be two months in calf during the test, we have a slightly different result; not as large a per cent being two months or over in calf. Many cows with big records have not been bred until the close of their year's work, but it seems reasonable to expect a cow to be at least two months in calf, and it is an uncertain matter to report them safely in calf in less time. I have therefore selected this period on which to base my figures for this article.

The cows of all ages which were two months in calf during the test, produced butter-fat in the following amounts per year:

90.5 per cent produced 400 to 450 lbs.

92.2 per cent produced 450 to 500 lbs.

90.8 per cent produced 500 to 550 lbs.

85.4 per cent produced 550 to 600 lbs.

79 per cent produced 650 lbs. and up.

Taking the above report to be correct, we have the following results: The association reports over 95 per cent of the record cows in calf before the close of the test. Barring out those cows reported in calf, but not found to have been two months in calf, the records show that 90 per cent is a good average. It would seem, then, that records of 400 and 500 pounds of butter-fat can be made, without impairing the cow's capacity as a breeder, with careful feeding and management; but when a cow is forced to 550 and 600 pounds of fat per year, there is great danger of making her a non-breeder. These figures have been worked out with Guernsey cattle; as the Guernsey Association is the only one giving the data required for the above information.—Geo. P. Grout, Dairy Division, University Farm.

About Our Paper.

The University Farm Press News—more properly speaking a proof sheet of admirably edited matter for the use of country editors in Minnesota—we fear is not sufficiently appreciated by the fraternity. There are two obstacles in the way of such an enterprise. Some editors regard all free matter that comes to them, and all applications for a word of endorsement, as a sort of graft; and others are just a little more likely to extend such a favor to the rankest kind of a graft than they are to so meritorious a movement as the Extension Division of the Minnesota State University. Next to country editors, we doubt if there is a class of men on earth quite as much in need of at least a little fundamental, practical, well, at any rate, rudimentary knowledge, as are the farmers. The University Farm Press News is full of timely, valuable ideas, admirably expressed; and the editor with a farming constituency, who cannot pick out at least one or two educational hints from its columns, each week, certainly has a lot to learn himself.—Midway News, St. Paul.

To produce a perfect plant there must be a perfect seed, planted in a perfectly-prepared soil and cultivated by a trained intelligence. In just so far as there is a deficiency in any one of these particulars will the result fall short of a perfect crop. And as the trained intelligence is essential in the selection of the seed and the preparation of the soil, we quickly find that this is the foremost, the dominating requirement of "successful farming."

Leaving the Farm.

An examination of the essays written by boys and girls—in competition for the prizes offered by Messrs. Chapman and Loring, on the topics, "Why I Want to Leave the Farm" and "Why I Remain on the Farm,"—reveals a preponderance of sentiment, none the less gratifying because in the presence of recent movements it was to have been expected, in favor of remaining on the farm. More than four-fifths of the writers voiced that sentiment; and they supported it with such an abundance of reasons, that no one need fear that, in Minnesota at least, the drift of the young people away from the farm will hereafter take on discouraging dimensions.

It is doubtful, however, if this gratifying preponderance of sentiment "on the right side" would have been seen, had not the young essayists found the stock arguments of twenty years ago—such as the superior healthfulness of the country, the better food, the attractiveness of the scenery and the fascinations of plant and animal life—supplemented by such new arguments as these:

1. That "modern improvements" in the home are now practically as available in the country as in the city. That is, running water, baths, hot-water heating plants, electric lights, new kitchen and laundry appliances, etc., can be found in the home of the farmer as well as in that of the townsman; or, if not already there, they are easily "within sight."

2. That the consolidated school is bringing to the country districts educational advantages equal at least to those afforded by the graded schools of the cities; to which is added, in many cases, a special agricultural course which the city school cannot afford. The cheerful optimism of youth, pending the more general "arrival" of the consolidated school, is willing to make the best of the schools as they now exist.

3. That the telephone, the daily free delivery of mails, the daily paper and the automobile, have already made the isolation of farm life, in large areas, a thing of the past, and promise to destroy it everywhere.

4. That the recent improvements in tillage, and in stock-raising and dairying, have so increased the profitability of farm pursuits as to make them compare more favorably than ever before with the gains in other pursuits.

Add to these fresh arguments the fact that the new light which is thrown on Agriculture by the educational work of the Farm School—of the Farmers' Institutes, and by the various instrumentalities of the Extension Division—has so clothed it with attractions for the aspiring among our boys and girls as largely to counterbalance the meretricious allurements of the city callings, and we do not wonder that more than four-fifths of the bright young people who contributed those 2,000 essays decide to "remain on the farm."—C. R. Barns, Extension Division, University Farm.

The Foremost Reason.

Girls and boys competed in about equal numbers for the prizes offered by Mr. Jos. Chapman, for the best essays on the topic, "Why I Want to Leave the Farm." First and foremost among the reasons given, for desiring to go to the city, was the superiority of the city over the country schools, and the comparative ease with which the former could be reached. The comparisons drawn between the little one-room district school—with its scanty apparatus and its single teacher, often poorly fitted for the place, and compelled to divide her time among pupils of every grade; to be reached in many cases only by a walk of from one to two miles, perhaps through drifted snows or in soaking rains—and the commodious, well-equipped graded school of the city, with its array of highly-qualified teachers, reached by a short walk on good sidewalks, or by a trolley car—well! these comparisons lost nothing of their natural force in the hands of the youthful but sometimes already embittered essayists. And then, for the graduate of the city graded school, there was the high school, easily accessible; while for the boy in the country it was a thing rather to be dreamed of than hoped for as the scene of yet higher climbing on the ladder of learning.

Doubtless, in many cases, the comparison was overdrawn; doubtless, in some, the plea for better educational advantages covered a poor use of such as the boy or girl already possessed. In many cases, too, the fact that it costs a good deal to live in a city, while going through a graded or high school course, was not sufficiently considered. But the truth remains that, in the majority of instances, the complaint is the expression of a natural and wholesome desire; and that in its gratification, in many instances, lies the key to the problem, "How to keep aspiring boys and girls on the farm."

Co-operation has solved many a knottier problem than this, in both city and country; and co-operation

offers, through the "consolidated school," the means of affording, to the boys and girls of the country district, every advantage afforded by the city graded school, with some that the latter does not and cannot offer. A row of consolidated schools, stretched across the current of young life now moving toward the social whirlpool of the city, will as effectually hold it in check as the "Roosevelt Dam" holds the current of a mighty river. And fortunately the cost of such an improved system has been proved to be so little, if any, in excess of the present system of isolated, one-room district schools, that no region need long deny itself its advantages.—C. R. Barns, University Farm.

Looking Toward Irrigation.

How last season's drouth has set thoughtful men in Minnesota to considering the possibilities of irrigation as an insurance against the loss of crops—at least of such crops as are grown on limited areas, like fruit, garden truck and some varieties of field products—is shown by an article by F. L. Marsh of Champlin—well known as a farm architect and contributor to our agricultural literature—in Farm, Stock and Home; which is in part as follows:

"Irrigation in arid regions is a difficult problem. So is conservation of soil moisture in semi-arid regions. But no one thinks it impious or foolhardy to try either. When a section usually humid becomes temporarily more than semi-arid, can we not at least try to prevent harm, and to some extent make up the deficiency?"

"Gasoline or wind power is cheap, and water is, in many localities, plentiful. Why not use it? I am aware that it is a man's size problem. When we see people try to wet their gardens with a sprinkling can, and then say watering is of no benefit, we should recollect that an inch of rainfall means more than 900 barrels to the acre, and six barrels to the square rod. And it needs not one inch, but several. Thus something more is needed than the pail method; the light application that makes a surface crust and leaves the soil dryer after a day of sunshine than it was before. A thorough soaking is required, and the amount of water it takes on sandy land is surprising.

"On the other hand, the amount of water a good pump will throw in a day is surprising. The amount that can be raised on an acre or two of well fertilized, well tilled, and well watered land is very surprising. Another favorable point is, when it is dry it is likely to be hot, and soaking with cold water is better than the scalding vapor bath from sprinkling the hot soil.

"Likely it will be wet next year? How do you know? It will take much more rain than we have had yet to put the subsoil in decently moist condition, and a lot of rain or snow to make a store for next season's conservation or waste. (Which of the two shall it be?)

"Where shall we get the water? What about the thousands of lakes and streams in Minnesota? Can we make no use of them? What about that wonderful underground lake that lies under all this drift-covered region; often only a few feet from the surface, and in strata through which water will flow freely to a drive point? Can't we tap and use that—perhaps with reservoirs made watertight with mud as are our lakes—if we cannot reach a lake or stream?"

"Now I can't tell much about how to irrigate. I know how I intend to try next season if I don't put it off and forget; but my method might not suit another farm, and I hope to know the "how" better later. I do know that I could have made several hundred dollars on a strawberry patch which the hot sun and drying winds were ruining while we were having well diggers' luck trying to get water enough to supply the engine, pump and pipes I already had. I know we had results from what water we did get, and no harm. My chief error was in waiting till the water was needed before I tried to get it.

"I have never seen a season without a drouth here or in the East; when a good soaking sometime during the growing season would not have been a great benefit to berries, potatoes, garden stuff, grass land, and—in lesser degree, perhaps—to all other crops. I would not suggest going into the matter heavily or thoughtlessly, but why not try it on a little patch at least? It would give some vegetables and fruit for winter, and many have none this year. A man here in the village has pumped water on his garden by hand, and has more crop than many times the land without water. He did not sprinkle, but kept the pump going for hours at a time."

Co-Operation in Building Silos.

Five farmers in the neighborhood of Litchfield co-operated and purchased building-material in large quantities. They united and aided each other in erecting a stave silo on each of their farms. The following is the cost of material and labor in building one of these, on the farm of Gilbert Gorgenson, who furnished these figures:

The silo is 36 feet in height and 16 feet in diameter.

116 pieces 2x6, 30 ft., Washington price	\$111.36
26 pieces 1x12, 12 ft.	10.42
Ripping boards corner to corner, for roof	.50
10 3-16 in. hoops, 54 ft.	25.00
4 pieces 2x4, 18 ft rafters	1.34
Other lumber	7.00
Cement for foundation	15.00
Labor in cement	15.00
Carpentry, 10½ days, at \$2.25	23.25
Common labor, excavation and raising	7.11
Paint	6.80
Labor of painting (3 coats)	5.00
Hardware	1.00

Total\$228.78

This is the actual cost of the silo complete. The real cash outlay did not exceed \$200, as Mr. Gorgenson and boys did most of the carpentry, painting and common labor themselves. Staging was either returned or used on the farm; so no account is made of same, except labor.

To have the above silo built by contract today would cost about \$275.

From careful study and observation, the writer is of the opinion that a cement-block silo of the same size, with wall six-tenths of an inch thick, complete, can be built for about the same money; possibly cheaper if the sand is near at hand. Experience has shown that ensilage is as well preserved in a cement silo as in a brick or wooden silo. The hoops of a stave silo must be watched and tightened like a dry barrel, or a collapse is certain. It must be kept painted and repaired. In time it will rot down, though we may expect twenty years of service from it. A cement or brick silo, once properly erected, reinforced with wire and plastered to make it air-tight, should stand the lapse of time to the blessing of posterity.

Following are some estimates on a hollow-block silo, 16.5 feet in diameter and 28 feet in height, of cement wall. The blocks had a front facing of 9x36 inches. The lower 12 tiers of blocks are 10 inches in breadth; the next 14 are 8 inches; the last 12 are 6-inch blocks. The blocks were home-made, formed in wooden frames lined with sheet iron. Seven hundred blocks were used. Sand to cement 1:5; 43 barrels of cement required. To build the silo 6 feet higher, or 34 feet high, to compare with the Gorgenson stave silo in size, would require 150 blocks more, using 9 barrels of cement additional. The blocks are laid in rich cement 1:2, reinforced by No. 8 wire, or a double course of barb wire between the tiers. Possibly 10 barrels more of cement can be used in foundation floor and plastering, making in round numbers a total of 60 barrels of cement. Last year, cement could be purchased in carload lots at \$1.50 per barrel, or \$90 for the 60 barrels. A mold can be purchased for about \$15. The cost of roof is the same as in a wooden silo.

A contractor, Mr. Melvin Weeks, of Richmond, Mich., who has experience in concrete work, estimates that he can, with the aid of two men, make 100 10x32x8 blocks in 10 hours. Figuring labor at \$8 per day, it would cost \$68 to mold blocks. Two men can lay five to eight tiers per day, making the labor cost, about eight days at \$5 per day, \$40. To lay a cement floor and to put on ½-inch cement plastering, \$25. Chute to throw down ensilage, \$15. Silo doors, \$5. Reinforcing, 300 pounds No. 8 wire or barb wire, \$12. The cost of silo now stands:

Cement	\$90
Molding blocks	68
Laying blocks, floor and plastering	65
Chute and silo doors	20
300 lbs. No. 8 wire	12
Roof (same as wooden silo)	20

Total\$275

By co-operation and close figuring, the labor items may be reduced. Such a silo will hold 140 or 150 tons of ensilage. Original cost of storage, less than \$2 per ton. Farmers, get together! buy in carload lots material for silos, of whatever material desired! co-operate in building, filling, and in the purchase of machinery! It means a saving of dollars and cents, which may be needed for the home or other improvements.—Chas. Nelson, Littlefield, Minn.