

insure good germination. The addition of valuable plant food in the forms mentioned, will greatly increase the chances of a successful "catch of grass."

By such treatment, weak wheat will be greatly benefited and materially assisted towards a profitable yield of superior quality of grain.

Reforming the Teachers.

A document issued by the National (United States) Bureau of Education sets forth the proposition that "rural school teachers are a positive force to depopulate the country districts. The courses of study, the methods of teaching, the general tone and influence of the country schools tend to drive the young to the towns." This is by no means a new discovery. But that rural teachers have been, and often still are, such an inimical force, is due chiefly to the system to which, until recently, they were obliged to conform if they would obtain an education fitting them for a teacher's certificate. Now, however, that system is being gradually reformed by the introduction of courses directly bearing upon country life; by the revision of text-books, so that examples and exercises shall be based upon agricultural affairs, and by the exaltation of rural topics as equally interesting and mind-expanding with those of the counting-room and factory. Even the Bureau of Education has caught some inspiration to activity in the interest of "education toward the farm," and has compiled "A Course of Study for the Preparation of Rural School Teachers," for free distribution to those aspiring to the greatest usefulness in the country school.—[C. R. Barns, of Minnesota.]

Some Wheat Growing Comparisons.

(Our English correspondence.)

Statistics are ordinarily considered to be "dry" reading, and certainly, when one is confronted with scores of pages of solid figures, they present rather an unattractive appearance. But when the figures are examined, and comparisons made, many most interesting and important facts are brought to light, and much valuable information gained.

An elaborate return was recently presented to the British Parliament by the Board of Agriculture, containing exhaustive sets of statistics covering British, colonial and foreign agriculture for a series of years. Every country and every possession is dealt with, both as regards the leading crops and live stock, and in every case the figures are from reliable sources.

We are all more or less "insular" in our ideas, and with the general impression that our methods lead to results superior to those obtained in other lands. Our ideas are based on ignorance, usually from lack of the means of acquiring actual knowledge of conditions in other lands. The Britisher, for instance, usually holds the idea that his country produces more wheat to the acre than any other country. The British wheat average for the five years preceding 1910 was 33.37 bushels to the acre, a capital average on a fairly large

acreage, but the Belgian average for the same period was 35.80 bushels, and that of the Netherlands 34.54. By far the largest acreage of wheat in any one European country is in Russia. Excluding Poland, Russia had, in 1910, about 52 million acres, but the five-year average yield was only 8.87 bushels. Germany has about as much land under wheat as Saskatchewan, and her average is 29.73 bushels. The Saskatchewan average, from Provincial Government figures, is 18.25 bushels. Food for consideration here—when the virgin soil of Saskatchewan is remembered, and German cropping for centuries. Hungary is a good wheat-growing country, and in 1910 had about the same acreage as Canada, excluding British Columbia. The Hungarian average for five years is 17.47 bushels, and the Canadian (1907-1909), 18.20.

Although the Dominion average of wheat is by no means flattering, still it compares favorably with the sister commonwealth, Australia, as the Australian five-year average is but 10.22 bushels. Argentina, another big wheat-growing country, has an average of 11.39, and the United States average is 14.31.

While your Western wheat area has been extending with marvellous rapidity of late years, other countries can also show wonderful expansion. Comparing 1910 with 1909, your area increased by just over 1,500,000 acres; that of India by nearly 1,750,000, Australia by 750,000, Argentina by 1,000,000, and the United States by almost 2,500,000. The total British increase was just over 4,000,000 acres.

F. DEWHIRST.

GOSSIP.

Five lambs at a time is the birth record reported of a gray-face ewe, the first week in April of this year. The ewe and her quintette of youngsters are the property of Mr. Fortune, of Portsoy, Scotland, and the whole lot are alive and hearty.

George Gier & Son, Grand Valley, Dufferin Co., Ont., breeders of Shorthorn cattle, whose young stock won several important prizes at Toronto last year, send, too late for this issue, a change of advertisement in which they offer at a low price, a nice red bull 12 months old, of the excellent Bellona family, the heifers of breeding age recently advertised having been all sold.

At an auction sale of Jersey cattle, the property of J. Michael, at Fairmount, West Virginia, the second week in April, the bull Golden Fern of Rockland, by Golden Fern's Lad, sold for \$2,000, to W. E. Shaver, West Virginia. The six-year-old cow, Raleigh's Silver Duchess (imp.), went to A. R. Howard, at \$625. Four other cows brought prices ranging from \$400 to \$460, and nine others from \$300 to \$360 each.

At the dispersion sale in the first week of the present month, of the Sunnyside Clydesdale stud of Alexander McRobie, Aberdeen, Scotland, good prices prevailed. The top price was \$1,450, for the bay four-year-old stallion, Leonarda (15917), bred by the Seaham Harbour Co., sired by Gamecock, and purchased by John Gibson, Brechin. The bay four-year-old horse, Craigievar, by Cassablanca, sold for \$1,130, to W. Marshall, V. S., Aberdeen, and the bay four-year-old Sunnyside Conqueror, by Baron's Conqueror, was taken by W. Rutherford, Crail, at \$1,050.

Richard Honey & Sons, Brickley, Ont., breeders of Holsteins and Yorkshires, too late for insertion in this issue, send a change of advertisement which will appear next week. Messrs. Honey also report recent sales of Yorkshires to Thos. McBride, Niagara Falls South; John J. Minaker, Black River Bridge; Henry Chesterfield, Dundonald; Edward Fleming, Hastings. They have only one boar left that is old enough for service, but have some choice ones just weaned. In Holsteins, they have some very choice bull calves for sale, sired by their stock bull, Lakeview Burke Payne, whose dam and sire's dam average 23.14 lbs., and his sire has ten sisters that average 30.63 lbs. butter in seven days, while the calves are from large producing dams.

Col. Ferguson, of Inverary, and Samuel Jamieson, of Battersea, Frontenac Co., Ont., have purchased from Hayward Ripley, of Elgin, at a fancy figure, a Holstein bull, a brother of the cow owned by W. C. Stevens, of Philippsville, which died April 7th. This bull is a son of the cow, Jewel Princess Pet.

TRADE TOPIC.

The lawn or garden swing is a pleasant and inexpensive comfort in the summer months for the children, and grown-ups as well. The Stratford Manufacturing Company, Stratford, Ont., make these and other out-door furniture solid and strong. See their advertisement in this paper, and write for their free booklet.

QUESTIONS AND ANSWERS.

Miscellaneous.

HORSE COUGHS.

Horse rising five years has been fed on straw all winter, and about 6 quarts of oats a day. Seemed all right until about a week ago, when he started to cough some and sides would roll. Is in good condition and feels well, but does not drink much. Would like to have your advice.

Ans.—The description of the trouble is scarcely ample enough to justify a diagnosis of the case. He may have cold or distemper, or the trouble may be heaves. If still coughing and breathing heavily, feed only on first-class food. Dampen all he eats. Increase the grain ration, and avoid hard work soon after feeding or watering. It might be advisable to call your veterinarian, as he is a young horse, and horses of this age rarely contract heaves.

STEEL SILO.

In looking up my old "Farmer's Advocate" in regard to steel silos, I found that some men wrote letters in 1910. They had just put them up year before. Will you be so kind as to ask them to write again and tell us how they are standing it; if the paint on inside is giving satisfaction, and if they freeze much, etc.?

Ans.—Correspondents writing to this office on this subject state that there is some difficulty in protecting the inside of the silo against the acid of the silage. W. C. Good, of Brant Co., found a rubber roofing felt to be the only effective means of averting this trouble. This is stuck to the walls of the silo by the lap cement that goes with the roofing. He suggests trying a mixture of red lead and oil covered by a wash of Portland cement this summer. Other readers owning steel silos are invited to contribute their experience to our readers should they have it.

MOLES.

Will you kindly tell me how to get rid of moles in our lawn? Would mouse traps be of any use, and if so, what bait should be used?

E. H.

Ans.—Moles are insectivorous animals, and it is doubtful whether they can be successfully trapped. By using baited traps, a specially devised cylindrical trap set in their runways or burrows is sometimes used. They prove a pest in some lawns, and are hard to get rid of. Carbon-bisulphide, if it can be made to reach them, will do the trick. As their borings are often quite extensive, this is not always successful, but can be tried. Place some of the material in the hole and carefully plug it so that the fumes penetrate the moles' holes and smother them.

FEATHER PULLING.

My hens have been eating their feathers this winter, and are still at it. Some have few left other than their tail and wing feathers. They are all last year's pullets, and have laid well all winter, fed mostly on wheat, boiled potatoes, with oat or barley chop mixed. They have had oyster-shell all winter. What is the cause, and what will prevent it?

T. M.

Ans.—Eating or pulling feathers is generally supposed to be due to a lack of meat food. Sometimes a few birds seem to contract the habit of feather pulling. Give the hens free run, and milk to drink. Some claim a little sulphur added to their mash or drinking water is beneficial. Little trouble is likely after the hens get plenty of green feed and meat food in their diet, and free summer range.

MISCELLANEOUS QUERIES.

1. Have a young bull with one visible testicle. If he is deprived of this, would it be safe to turn him out with young heifers?
2. Have about forty hens. Does it make any difference to the number of eggs we get if I haven't a male bird in the flock?
3. How should cow's milk be diluted to feed very young lambs?
4. Will posts heave up more if planted when moon is growing?

A SUBSCRIBER.

- Ans.—1. Not likely. The other testicle is likely present, but not down in the scrotum.
2. Not a particle. The male should be removed from the flock during the summer season, unless eggs are to be used for hatching.
3. Ewe's milk is said to be richer than cow's milk. Use the milk of a fresh cow. If very rich, add about 25 per cent. water, and always add brown sugar. As the lamb gets stronger, it will stand stronger milk.
4. Why about they?

SHOE BOIL.

What would produce a swelling on my mare's front leg, right close to the elbow joint, about the size of a double fist, and now all the leg is swollen a little?

F. S.

Ans.—This is a shoe boil, or capped elbow. It is caused by the mare lying with the elbow resting on the heel or shoe. It is rare in unshod horses. If serum or pus is present, it should be removed. If a fibrous tumor, it must be dissected out and dressed as for an ordinary wound. Absorbents sometimes apparently effect a cure.

CEMENT FOR WALL.

My brothers and I are talking of building an outside cellar that would be in the side of a bank. The bank is eight feet high, and we think we will build it out of cement, wall 8 feet high and 16 inches at base, 8 inches at top. The building will be 40 x 30, 8 feet high. How many barrels of cement will it require to build this wall, and how much gravel would you advise to be put to one barrel of cement, and would it be all right to use large rock well washed; rock 8 and 10 inches thick, and how much had a wall of that size ought to cost?

F. W. S.

Ans.—Mixing one to eight would require 42 barrels of cement and 10½ cords of gravel. Some large stones could be used in the wall.

FEEDING MOLASSES.

1. Of what value is feeding syrup for cows and horses, and what amount should be fed?
2. Did the Stallion Enrollment Act, before the Provincial House some time ago, pass? If so, what are the principal points?
3. In plan given for septic tank in "Home Waterworks," tile are laid from 8 inches to a foot below surface of ground for contents of tank to pass out through. Aren't these likely to freeze during winter and stop the flow of refuse?

Ans.—1. We presume molasses is meant. Cane molasses has a feeding value about equal to corn. It is palatable, and in small quantities is much relished by animals. Beet molasses is bitter and not relished, often purge the animals, and of little feeding value. There is little to be gained by feeding even cane molasses over results obtained from corn, although it acts somewhat as an appetizer. It is sometimes used in preparing animals for show-ring purposes. Two or three pounds daily with the grain ration would do no harm.

2. Yes. See article in our issue of February 29th, page 369.

3. Very little. Bacterial activity keeps the sewerage rather warm, and the overflow tiles are not running continuously.