

The Farmer's Advocate AND HOME MAGAZINE.

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DOMINION.

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are capable of producing under ideal conditions, but it is the long or yearly test that indicates the staying qualities under normal care and attention.

An article on another page of this issue gives an idea of what breeders have accomplished with their herds when they set out with a definite purpose. It is equally as important that the grade herds be brought up to a higher standard of perfection as it is to further improve the pure-bred herds. There has never been a surplus of high quality stock in the country, and it is doubtful if there ever will. It can hardly be said that perfection has been reached with individuals of any breed. There is still a big field of work for the breeder of live stock.

When Will the Tide Turn?

Information compiled by the Census and Statistics Office show that in 1881, 15.4 per cent. of the total population of Canada was engaged in agriculture. In 1891 the percentage was practically the same. In 1901 the proportion dropped to 13.5 per cent., and in 1911 to 13 per cent. It is impossible at present to see that the "back-to-the-land" propaganda has been instrumental to any extent in keeping young people on the farm, or in taking people from the city to the country. It is also difficult to see or predict how long this diminution of the agricultural ranks shall continue, but there is one factor which will eventually turn the tide, and that is when the agriculturists become so few and the urban dwellers so plenty that living in the towns and cities will become difficult and too expensive. Then, if history repeats itself some will find their way back to the country, and thus restore the equilibrium between the farm and urban population.

So long as transportation companies are liberally subsidized and manufacturers are bonused in an extravagant manner they can afford to pay such wages as will attract laborers in their direction. This will leave the country population small, and no amount of government money spent in educating farmers will convince them that farming is a glorious occupation

and satisfactorily remunerative. The decrease in the percentage of those engaged in the occupation of agriculture in Canada during the last 30 years explains fairly well the effects of our governments' inattention to agriculture during that time.

The New - World Trade in Shorthorns.

For over a hundred and twenty-five years Shorthorns have been purchased from the herds of Britain, and used to build up and improve the breed in Canada and the United States. This has constituted a lucrative trade for the Old Country breeder, and the number of cattle exported encouraged him in his operations and rewarded him, to a large extent, for his toil. Furthermore, when the Colonial went overseas with a well-filled purse or adequate credit, he could bring back individuals that were worthy to bear the name "imported" and do service on this Continent. Our neighbors to the south were also liberal in their bids for quality when they saw it in the homeland of the Shorthorn. During recent decades a trade was also developed between Britain and South America which took many thousands of dollars annually from the stockmen of the Argentine to the estates of England and Scotland. The result in America has been what one would expect where a system of constructive breeding is followed. We can now choose from the old established herds, males and females that are a credit to the name of the owners, and qualified to be used as foundation stock or to improve the commercial herd. The Argentine breeders were not slow to realize this fact, and, inconvenienced through the war in their trade with Britain, they turned to America for breeding stock. The American, in his characteristic manner, extended the glad hand to the newcomer, and through an exchange of judges at the show in Argentina and at the International at Chicago they hope to cement the newly-founded friendship into a new-world brotherly feeling that may result profitably to both parties. This export trade assumed considerable proportions during the past sales season, and this combined with a universal shortage of meat products, when the need is great, has made and will make itself felt still further throughout all stages of the live-stock industry.

The stockmen in Britain are now awakening to the fact that something has happened in the Argentine, and their reputation is no longer sufficient to draw in their direction all the overseas business in breeding Shorthorns. Members there are asking the Shorthorn Society to make a move before the hand writing appears on the wall.

This is not meant in any way as a reflection upon the conduct or character of the American or Old Country breeder. The object is only to set forth the trend of events and show what is liable to transpire in the hustle and bustle of live-stock breeding activities. Any development of the business with South America will strengthen the demand in Canada, for our neighbors in the Republic south of us think highly of the Canadian-bred Shorthorn, and when trade is brisk there the effect is soon felt in this Dominion. New fields are constantly being explored which will be able to use good cattle, and the breeders of this country must emphasize quality instead of quantity if they desire to obtain the most out of the conditions as they arise. With a well-defined, constructive breeding policy, making use of the best matings they can afford, Canadian cattle breeders can look forward to a good business even down to the commercial herd which produces pure-bred stock for use on the farms.

Nature's Diary.

A. B. KLUGH, M.A.

The way in which some animals make use of the work of other animals is one of the very interesting things we sometimes come across in our study of nature. The other day I discovered some Hickory trees on which a great many of the leaflets had been rolled into cylinders by the larva of the Hickory Leaf-roller. This insect, when in the larval condition, rolls up a leaflet, tying it with silk, and pupates within the cylinder thus formed. On opening some of these cylinders, I found within not only the larva or the pupa of the Hickory Leaf-roller, but in most cases either the larva or pupa of the Forest Tent Caterpillar. Now, this latter insect is in the habit of seeking some snug hole or crevice in which to pupate, the cocoons usually being found in crevices in the bark, under stones, or in dead leaves on the ground. In this case the larva, when they had

finished feeding on the leaves of the Hickory, found that the Leaf-roller had made very suitable retreats for their use, and promptly adopted them.

One of the most curious larvæ which we have is that of the Puss-Moth, which is found feeding on the leaves of our willow bushes, around ponds and swales. This caterpillar is about an inch in length, pale green on the lower part of the sides and on the abdomen, and has a large brown patch on the back. It is very blunt at the head end and tapers to a point at the opposite end of the body. At the posterior end of the body are two tail-like appendages, which, when the insect is feeding or resting quietly, extend straight out behind. When the larva is alarmed or attacked, it curls these appendages up over its back, protruding from each an orange-colored lash-like thread. This peculiar arrangement is considered to be of use in keeping off parasitic insects which attack it. While this may be its means of escaping these enemies, it undoubtedly escapes other enemies, such as birds, on account of its protective coloration, for its light-green lower parts blend in wonderfully well with the green of the willow leaves, while the darker upper parts resemble the withered brown edge of a leaf.

The latest breeder among our birds—the American Goldfinch—is now busy nest-building. Its nest is a firm compact structure, the exterior being composed of shreds of bark, fine grass and vegetable fibres felted firmly together. The inside is lined with a soft, deep bed of thistle down. The position of the nest varies a good deal, being anywhere from five to thirty feet from the ground. The eggs are from four to six in number and are plain, pale bluish-white.

The American Goldfinch is often termed the Thistle-bird, not by any means a bad name, as the seed of the Thistle forms one of its main articles of diet. In fact, from the time the Thistle seeds ripen until late fall, one of the places we most frequently see the Goldfinch is perched on a Thistle head busily picking out the seeds. In this way the Goldfinch does a great deal of good, and is a very real friend to the farmer. It is also called the Wild Canary, and if this name should be applied to any Canadian bird, this is the species which should bear it, as it is more closely allied to the Canary than any other bird in our fauna. The name Wild Canary is, however, also quite commonly, but erroneously, applied to the Yellow Warbler, evidently because of its bright golden color. It is mainly size and color which strikes the casual observer of birds. The form of the bill is usually ignored, yet the shape of the bill is the index to a bird's Family, and is one of the most essential points to notice if desirous of identifying a bird.

In summer the male American Goldfinch is a bright pale yellow, with a black cap, black wings and tail, and white wing-bars. The female has the head and back olive-brown, and the under parts yellowish, her wings and tail resembling those of the male, except that the black is not so pure. About the middle of September the male moults into a plumage which resembles very closely that of the female. In April he again assumes his summer garb, not all at once, but gradually little patches of bright yellow showing here and there in his dull winter coat, and spreading until full plumage is attained.

The song of the American Goldfinch is a very bright little melody, and the male has also a pretty note, "Perchick-o-ree," which he utters on the downward curve of his looping flight.

The range of the American Goldfinch is from Labrador to Manitoba. In the latter province it finds neither Thistles nor orchards, so it eats the seeds of other plants belonging to the Family Compositæ, such as the Black-eyed Susan and the Gaillardia, and nests in the low poplars and oaks. Over most of Canada it is absent in the winter, but in southern Ontario flocks of this species are to be seen all through the winter. The so-called "Winter Canary" is, however, usually the Pine Siskin, a Finch about the size of the Goldfinch, but more flaxen-colored and streaked all over.

The European war correspondent of the Brooklyn Eagle, who has seen every army in Europe, last of all that of Great Britain, pronounces it eminently fit in men, leaders, guns, and supplies for the giant task of driving back the German foe. Britain has accomplished in two years, he declares, what Germany has been busy working up for forty years.

There is usually one or two places in the field where the sample of grain is superior to that in other parts. In harvesting, it is advisable to keep this good grain separate from the rest in order that it may be saved for seed. This is one way of selecting to improve the yield and quality of the crop.

All fences surrounding growing crops should be kept in repair. A broken rail may permit the stock to break into and practically destroy a crop that is nearing maturity. If cattle or horses once break into a field it afterwards requires an extra strong fence to keep them out.

August is the month that potato blight frequently makes its appearance. Protect the crop this year with Bordeaux mixture, 4-4-40.