

Vol. 12, No. 2

REGINA, SASKATCHEWAN, WEDNESDAY, APRIL 13, 1910

Subscription, \$1.00 Per Year

FARM COMMENT

In this issue we publish an interesting article on the "Origin and Evolution of Poultry."

In 1908 and 1909 Canada imported over two million dollars worth of lard and we are a country of great agricultural resources.

With hogs ten dollars per hundred weight and we import two-thirds of our bacon, surely indicates a great field for the mixed farmer.

The farm labor situation is becoming acute. Farmers should make every effort to secure help, and a few dollars should not prevent the engagement of good men. In addition to the increased demand among the farmers the railroad building and other great works will be active competitors in the labor market.

GOOD ROADS.

Wolsley Rural Municipality is leading the movement in favor of good roads. At a recent meeting of the council it was decided to issue debentures to the amount of \$12,000 to be expended on the roads of that district. This is a move in the right direction. The decision to place the expenditure in the hands of the representative from each district is not a good principle. Roadmaking is a science, and the municipality should have engaged a competent man to oversee the entire work.

The Good Roads Movement has come and within a few years great strides will be made in this necessary work. The lack of proper ballast is a great hindrance and drainage is the only solution.

The enormous loss to the farmer through bad roads cannot be estimated. Any efforts toward the solution of this problem will be appreciated by the Saskatchewan farmers.

HORSE PROBLEM.

A staff correspondent of the Canadian Farmer makes some interesting comments on the horse problem in this province. This question is one of vital importance to the farmers. Prices have soared until now horses are of greater value than at any period in western history. The Canadian Farmer says:

Next to the question of moisture is that of horse power to perform the work. Horses are wanted by every farmer, and the horse trade is booming throughout the west. "When we are only cultivating 15 per cent. of our land in Saskatchewan," said A. Mutch, president of the Horse Breeders' Association, "and we have created such a demand for horse-flesh already, what will the result be when we are cultivating 40 per cent. or 50 per cent. of it?"

Horses are coming in almost by the train load. They come from Ontario, from the old country when they can be obtained, and they are coming in from the United States. There are about 800 to 1,000 head per week coming into Canada from the western states at North Portal. Owing to stricter quarantine regulations now in force, these horses are all subjected to the melaine test for glanders before being allowed to enter.

Many look to gasoline power to take the place which horses are too few in available numbers to supply. So far it has not been an unqualified success, but all are optimistic in regard to it. "At the present time I can plow my land for less than half the cost with horses," was the remark of one man of very wide experience, "but that is not saying that gasoline is a complete failure."

Scarcity of horse-flesh was one of the things which made the early opening up of spring particularly welcome. It would make the power on the farm more capable of handling the operations of spring and summer than if work were delayed until late when it would have to be rushed harder. Continued warm bright weather will thus have its depressing and quieting effect upon the western horse trade, while backward, colder weather will inevitably make horse-flesh dearer and increase the demand.

PRICES WILL STILL SOAR

Shortage of Hogs in the United States as Well as in Canada—Ontario Will Have Big Supply Soon—High Prices For Two Years.

Hogs are 19c a pound on the hoof in Winnipeg, the highest price in 20 years, and there is not only a very limited supply of hogs coming in the market, but hardly a day passes that farmers do not visit the yards in person looking for brood sows, and as a rule finding none at all, or young and very inferior animals. Last fall when scores of brood sows were passing through the yards on their way to the slaughter houses the Free Press ventured to point out the folly of such a proceeding, but it had no effect and it is probable that not at any time in the last five years have the western provinces been so denuded of brood sows as they are today. Many farmers of the Canadian West are confronted with the prospect of paying 25c for bacon and 18 to 20c per pound for pork, for use on their farms this season, and the prospect does not look as alluring as it might. More than one institute speaker ventured last fall and early winter to point out that even the then high price at which coarse grains could be sold would not pay in the long run if they had to buy bacon for their own use at exorbitant prices, which a genuine shortage of hogs would create. These remarks, however, do not seem for a moment to have checked the sale of hogs.

Shortage of hogs is not confined to the western provinces; it is general over the American continent, but not always for the same reason. In the corn and hog producing states of the union shortage is almost directly traceable to the drought conditions in 1908, which forced a large number of hogs on the market, depressing the price at a time when corn prices were high and making the spread between the two such as to induce farmers in 1909 to increase their corn acreage and make no attempt to reinstate their hogs. The result of this policy is shown in the packing returns at Chicago where in the twelve months from March 1st, 1909, to March 1st, 1910, the decrease in receipts has been close on to 5,000,000 hogs. The United States are relatively as short of brood sows as the Canadian West, and many of the sows they have are of the small stocker sort, not calculated to give much of a breeding record.

Ontario is short of hogs also, though she has not been so imprudent as to denude her pig sties of brood sows to the extent that has been practised elsewhere. Long experience in the business has taught the Ontario man that it never pays to run short of brood sows with high breeding records. Ontario is short of hogs at the present time, but within six months her supplies will begin to be renewed, while in the United States and the Canadian West it will be a year if not more, before there can be any relief of the situation. Tons of pork in sweet pickle are being brought in from Ontario and finished in Winnipeg. Indeed much of the pork from Ontario which usually finds a market in Great Britain will come west this year.

In the meantime the very high price of hogs is profitable to only the very few farmers who have been wise enough to have hogs to sell. Of course the farmers will say, "Hogs are only dear because we are refusing to raise them." This is only partially true. Conditions in the United States which have produced the shortage there, the farmers, certainly the drought of 1908 was, and prices were bound to advance there. High prices in Chicago would have meant higher prices in the Canadian west no matter how many hogs had been raised, because the Canadian west has never produced more than a third of the bacon she has consumed and therefore the prices paid for hogs in Winnipeg are largely governed by the prices at outside points from which the balance must be drawn.

No matter how high a price a man has to pay for good brood sows at the present time it will pay to buy them, for unless the world suddenly turns Jew and refuses to eat pork, hogs will be dear for another two years at least.—Free Press.

Fat Stock Sale.

The sixth annual auction sale of pure bred cattle will be held in Brandon, commencing June 1st, under the auspices of the Cattle Breeders' Association of Manitoba and the Department of Agriculture, Ottawa. Notices of this sale are being distributed, and they contain the rules governing the sale.

THE SASKATCHEWAN FARM RECORD AND REVIEW

ORIGIN AND EVOLUTION

Of Domestic Poultry—An Interesting Paper on This Important Subject—Methods For Breeding Poultry.

(W. L. Ramsay, Bladworth.)

At the conclusion of many questions into the realm of agricultural science I have arrived at such unsatisfactory results from not starting at the beginning, that in order that such may not be our misfortune here I will ask this association to accompany me to my ancestral home—between the Tigris and the Euphrates, and we will take our time as the creation—further back I do not care to go.

Naturalists find the earliest Gallinaceous (crowing) birds to be the jungle-fowl, now extinct; their home the jungles of India, and their nearest descendants the game. A casual observation of any number of indiscriminately-bred poultry will reveal the game heek and further breeding will evolve other game characteristics. The propensity of the game is due to long breeding, giving fixity of type, and this fixity of type is what breeders mean when they enquire an animal's pedigree. In other words how long is this type of animal fixed? How far back does this breeding go? What is his pedigree? I may be permitted here to say there is nothing lost in breeding; characteristics may be obscured, hidden or so covered that they may be lost sight of, but in a "too sudden" cross these characteristics will emerge, and if properly worked out the pristine elegance of the original type regained. This is the art of breeding.

Charles Darwin sought a clearer definition of genera, order, species and variety. He selected pigeons as the medium of his experiment. From a large number of varieties he bred in regular order and on a retrograde metamorphosis, his resultant bird was a blue rock, the fantail being the last to surrender. His conclusion was that one class blend into another with such slight divisions that naturalists classification is merely arbitrary. Our conclusions to this experiment are that fantails are bred "far back," and that all varieties of pigeons originated from the blue rock aided by variation, fixed by selection and that nothing was lost in breeding.

A poor bird from a good stock is better than a good bird from poor stock. A single illustration that came to me under my observation may serve as an argument. The breeder of high-class Brown Leghorns was annoyed to find that his neighbor's Black-Breasted Red Game cock had visited his yard and there reigned supreme for one day. That season's hatch had one cockerel of such surpassing merit that in the show yard all competitors were outclassed. I bred from him two seasons, the owner said "and got nothing but rags. He destroyed my entire yard. He was a good bird from poor or mixed stock."

Visitors to the Orient and observers of Oriental tastes must concede that with them poultry takes first place. Games, Cochins, Brahmas and Langshans form one distinct class—Asiaties. They are large bodied, bred for flesh, not eggs, lay few small brown eggs and are persistent sitters. Egyptologists have in the recesses of the pyramids discovered an incubating chamber. May we not assume that poultry there bred were non-sitters. Each of the ancients there referred to had different aims in breeding—one for flesh, the other for eggs. And the type then new, but now fixed by forty centuries of breeding for a fixed purpose has given us the Mediterranean class—Minorca, Spanish, Leghorn, Andalusian and Hamburg. These birds, bred for egg production, are, with the exception of the Minorca, small and all nervous, active birds, very good birds, too, for your neighbor's garden. They lay large and many eggs—white—and are non-sitters. The occasional sitting of these birds, generally unsatisfactory, but confirm their origin in the Asiatic breed and prove that forty centuries have merely obscured but not created their natural sitting propensities—there is nothing lost in breeding. A comparison of conclusions show that sitters lay brown eggs; non-sitters white ones. I may add that from two classes all our general utility breeds are originated.

The naturalist, Audubon from the few bones of a bird found in the forest could assign the same a class and species. So the intelligent fanciers of today can tell the origin of a Mongroel or general utility back to one, or both, of the two classes first before mentioned with reasonable certainty. Let us not be misanderstood as claiming that none but birds of Asiatic or Mediterranean class should be bred. Fanciers are not standing still, but let me impress that to them, and them alone, crossing should be entrusted.

I will conclude by asking you to accept the doctrine that all Gallinaceous or crowing birds originated in the jungle-fowl, gallus bankiver via the game via Asiatic or Mediterranean. Answers to Enquiries From Members. There is no best breed. Determine first what you wish to breed for. For eggs take a Mediterranean, for show the block an Asiatic. For show birds select a solid color. Bi-colored birds add better be left to experts. Mature birds produce better specimens. Young stock produce birds with better laying propensities. A cockerel mated with old hens produces more pullets, though this is more hypothetical than experimental.

Corn is a heating and fattening food; barley brings out color; oats is a bone producer; wheat is the safest and best all-around food. Mangels and cabbage are refreshing in winter and the dust bath a necessity. Lice cannot live without moisture; this they secure from the hen's eggs, mouth or vent. When your hen is sick look for lice. If she does not lay in season, ditto. If a mut, same thing. You know where to look. If the scales on your poultry's legs are ruffled, lice have burrowed thereunder. Apply sulphur or creoline or coat oil mixed with lard, which will remove the cause and restore scales to normal condition. If your hen is seriously ill kill it to prevent contagion. It does not pay to have sick hens in your flock.

Breed early, tend carefully until growing—feed liberally, breed large, try, cut closely and from the retained stock select your breeders intelligently. Don't introduce a new bird into such a flock unless you know the strain; don't fear inbreeding. If you fear this bugaboo use two pens and your stock will not need a change of blood for many years. When it does go to some careful breeder that you have previously supplied and select your new males. Winter forms a large part of the cost. Give constant access thereto. Milk is excellent food and drink for poultry. Don't sell your best bird. Cull, cull, cull. Select, select, select. Such is the secret, if secret there be in poultry breeding.

CARE OF BROOD SOWS.

Rations Which Have Been Used With Good Success.

A recent writer in Breeders' Gazette in discussing the hog question, gives the following remarks on the care necessary for brood sows:

When hogs are selling for eight cents per pound live weight the farmer cannot be too careful of his breeding herd. If one wishes to have large, healthy litters of pigs for next year's market one must provide one's brood sows with a mixed ration. Corn alone does not provide a sufficient feed for the brood sow, yet because it is handy, plentiful and comparatively cheap it is fed lavishly on the majority of farms. Its indiscriminate use results in "back luck" at farrowing time.

Experiment stations advise the feeding of clover or alfalfa and skim-milk or buttermilk. On many farms milk is not plentiful enough to balance a ration for a number of sows and one is obliged to have recourse to something else to supply the required amount of protein. Writing from personal experience, splendid success has been had in feeding old process oil meal and shorts where a large number of sows are kept. These feeds are mixed as a thin slop and a good feed given every other day. When dry or interior wheat is on hand it is ground and used instead of shorts.

Of course judgment must be used even in feeding oilmeal, as too heavy a feed, especially at the start, would likely result disastrously. Cottonseed meal should not be confounded with oilmeal, as the former should never be fed to brood sows.

The poultry department of the central experimental farm is a national luxury. In answer to questions asked in parliament, the minister of agriculture informs us that this public estate covers three acres and five-tenths of an acre. He also states that there are at present 323 fowls in the coop. To properly attend to this business the services of five men are engaged. The aggregate salary of these "experts" is four thousand four hundred and twenty dollars and one cent. The revenue for ten months amounts to the magnificent sum of \$550.87.

FARMS FOR LESS THAN COST

Agricultural Conditions in New Brunswick in Bad Way—Farm May Be Bought For Less Than Costs of Improvements.

Andrew Elliott, who returned last week from a Farmers' Institute campaign in New Brunswick, presents a somewhat gloomy picture of agricultural conditions in that Province. "There is," said Mr. Elliott to The Sun, "200,000 acres less under cultivation in New Brunswick now than there were twenty-five years ago. That statement becomes all the more significant when it is remembered that the total area under cultivation in New Brunswick is only about one and one-half million acres. There are abandoned farms everywhere, while many are selling at less than the cost of the buildings.

"The condition is further illustrated by the fact that New Brunswick, which should be an exporter of agricultural produce, is compelled to import immense quantities of feed from other quarters. The town of Sackville last year imported \$100,000 worth of feed, largely grain and flour, while Eight, not far away, imported to the extent of \$60,000.

"The chief cause of the trouble seems to be found in the fact that the original settlers were not farmers, and that the country was poorly laid out. The first settlers were United Empire Loyalists, who were granted lands, so many claims fronting on a waterway, with a somewhat indefinite extension to the next watershed. The result of this is that there are many farmers these days who do not know just how far back their land goes from the water. I found one man whose farm extended seven miles back, and other farmers, in going to their land, had to either go around this man's holdings, or trespass upon them. The chief cause of the trouble, as I say, is, however, that the original settlers were not farmers and did not seem inclined towards agricultural pursuits. Here in Ontario, the sons of pioneers after assisting to clear up the homestead, went and took up bush farms of their own. In New Brunswick instead, they seem to have gone to towns and cities.

"There is no lack of opportunity in New Brunswick; in fact, if I were a young man I would go there rather than to the West. Land, as I say, can be bought for less than the cost of improvements and the prices at which products are sold are considerably higher than those ruling in Ontario. I have seen cows sell there for butchering at \$5 which would not fetch over \$4 in our markets."—Weekly Sun.

WORLD'S WHEAT CROP.

Geographical Distribution of Wheat Growing—Russia Largest Producer.

The March "Crop Reporter" sums up the wheat production of the world for the year 1909.

The geographical distribution of wheat growing is interesting. All the countries of both America and Europe are represented. Of South America but three—Argentina, Chile and Uruguay, are listed as wheat producing. Australia, save the northern part, and New Zealand are considerable growers. Africa is represented in the tables by Algeria, Egypt, the Sudan, Tunis, Natal and Cape Colony—a very small fraction of the entire area. In Asia, equally well adapted by soil and climate to Europe as a wheat area, the wheat growing centres largely in India and Asiatic Russia. Turkey is a reasonable larger grower, and Japan important. In the report China does not figure at all—the only important nation absent from the list.

By continents the production is as follows: North America, 811,000,000; South America, 189,000,000; Europe, 1,142,000,000; Asia, 430,000,000; Africa, 66,000,000; and Australia, 78,000,000, making a grand total for the world of 3,916,000,000 bushels.

In this production Russia leads with a total for her European and Asiatic possessions of 783,000,000 bushels; the United States is a reasonably close second with 737,000,000; France follows with 356,000,000, and British India is a strong fourth, producing, according to the latest figures, 283,000,000. Other countries that figure prominently in export production are Canada, the Argentine, Egypt and Algeria.

QUALITY IN WHEAT

The Necessity of Careful Selection to Produce Best Results—Best Grain Should be Used for Seed.

Our people are all consumers of the products of wheat. All are interested in pure, clean, palatable, nutritious wholesome white bread which is made only from wheat flour.

The quantity of flour produced from a bushel of wheat is important to the miller. The quality of the bread and other products that may be made from that flour is equally important to the consumer. What do we know about the amount and quality of flour produced by different varieties of wheat? To the average producer wheat is wheat, and he grows only those varieties that yield the largest number of bushels per acre.

Definite knowledge about the amount and quality of flour produced from different varieties of wheat can be produced only by careful investigations. The past and present of wheat production indicate in no uncertain manner that wheat will long continue to be an important staple money crop in our country.

The composition of wheat and its products has been studied for many years and more recently milling and baking tests have been undertaken in the large wheat-producing centres.

Varities of wheat grown under identical conditions often show considerable difference in composition, but soil and climate may cause greater variation in a variety than will be found between different varieties grown side by side. Such variation is especially marked with the protein content of the kernel, and we find that this constituent in wheat varies from eight to eighteen per cent. Conditions favorable to growth at the period of maturity tend to develop starch and result in a low protein content. Dry, hot weather at this period hastens maturity, checks the production of starch and results in a higher percentage of protein. Snyder, in his chemistry of plant and animal life, states that "as a general rule, wheats which contain the largest amount of nitrogen produce the most nitrogenous flours, but the total nitrogen in wheat cannot always be taken as an index of that in the flour." Exceptions are due to thick layers of bran, aleurone and large germs.

Protein is one of the most valuable constituents of food. Wheat contains the largest amount of proteins of any of the cereals. It is used as human food more extensively than any other cereal. With the exception of rye, wheat is the only grain which contains gliadin, the proteid which forms dough and with the gas causes expansion of the mass during the process of bread-baking. A study of the proteids of wheat and their relation to the quality of flour for bread and other purposes is therefore, valuable. The proteids of wheat are albumen, globulin, proteose, gliadin and glutenin. The last two are insoluble in water and together form gluten, a tough, elastic, spongy material that may be determined in a rough way by mixing a weighed portion of flour with water into a stiff dough, and after the dough has stood for a little time, washing it under a gentle stream of water until it is free from starch. Gluten is usually weighed first in the wet and afterward in a thoroughly dry state. Its physical qualities as well as the quantity are indicative of the baking quality of the flour. According to Snyder the gluten of good wheat constitutes from 80 to 85 per cent. of the total proteids and consists of 60 to 65 per cent. of gliadin and 35 to 40 per cent. of glutenin. Gliadin may be separated from either gluten or flour, with a 70 to 75 per cent. solution of alcohol, and is obtained by evaporating to dryness. Gliadin is the material which binds together the flour to form dough and enables the mass to expand, retaining the gas generated by the yeast, or liberated from baking powder.

Glutenin is the proteid which remains after gliadin is extracted from gluten. It also plays an important part in bread-making. Glutenin combines mechanically with gliadin and, serving as a nucleus to which the latter adheres, prevents the dough becoming too soft and sticky. Glutens of high quality are usually hard, elastic and of a light yellowish color.

Assiniboia Delegates.

A large meeting of the representatives of the various Conservative associations of Assiniboia was held in Estevan on Friday night, when 29 delegates were selected to attend the federal convention at Ottawa. The representation is evenly divided throughout the district, and the delegates were nominated by the local associations and the nominations confirmed by the central association. Minard's Liniment for sale everywhere.

SEEDING.

This is one of the years that the crops of the country should be clean. We have one of the finest years that Nature could give us for the destruction of weeds. Yet I know that a very large portion of the crops will be very dirty, because some of the farmers have not used the time Nature has given us for the cultivation of our land for the destruction of weeds, but have put in the grain just because they could get on the land. Crops that have been sown up to the present time cannot help but be dirty, and there was no growth in the summer-fallows for the weeds last fall in the greater part of the province, consequently the weeds will grow this year. If the grain is sown before there is any growth in the land, the weeds and grain will grow up together, with the natural result, a dirty crop.

I know a great many people will not agree with me in what I am writing. I think we can all learn from one another and my experience and other people's experience will help me, and so we become co-workers together with Nature in bringing from our farms the best results obtainable.

I do not believe I am doing my grain until there is growth in the ground. Of course, the years differ, but it ranges from the 15th of April to the 10th of May, according to the season. If we take the Experimental Farm reports, wheat sown about May 1st gives the best results. I put the harrows on the land as soon as the land is dry enough, but I do not go on the land when it is wet. If I have any spring plowing to do I put the plow to work and when I see there is growth in the land and the weeds are growing, I put the harrows on again before the seeder, thus destroying millions of weeds that would be robbing the wheat of the moisture it should get. I put the seeder on next and then I harrow after the seeder so that the land is in splendid shape for the grain to grow and it goes right ahead. Not only have I destroyed the weeds but I have also destroyed the possibility of smut doing my crop damage. Not only have I brought the weeds to grow, but I have brought the smut germs to grow if any are in the land. There, being no grain in the land for the smut to live on, it will like all fungus growth, thereby I have saved my grain and I have never grown smut on my land.

A FARMER.

CROPS FOR SHEEP.

Bulletin Dealing With Special Crops for Sheep.

The wise shepherd in planning his crops for the year has regard to the needs of his flock. He recognizes the great advantage of providing not only a variety of foods but a succession of succulent crops the season through. Bulletin No. 14, "Sheep Husbandry in Canada," published and issued free by the Live Stock Branch at Ottawa, takes up this subject in a practical and thorough manner. Under special crops for sheep it deals with clover, alfalfa, vetches, rape, cabbage, turnips, mangels, corn and the several classes of grain. Each is treated separately in regard to method of cultivation and manner of feeding. Dealing with vetches the bulletin says:

"Vetches, or tares as they are also called, make excellent fodder for sheep, either as a soiling crop or as cured hay. This crop most resembles peas in habit of growth and requires about the same kind of cultivation. Its vines are more slender than pea vines and stand up better when grown with a stiff variety of oats. Vetches are grown extensively for sheep feed in Great Britain, and to some extent in Canada for the same purpose. The writer, while raising sheep, always grows a small area of tares with oats for oiling the show flock. The crop being fine in vine and very leafy is much relished by sheep and constitutes a rich diet.

"Two varieties of vetches are grown for fodder. The common vetch is the chief sort cultivated, but the hairy variety is receiving some attention. The latter produces the heavier yield, but so far the seed having to be imported is very expensive and few care to bother with it.

"The soil for vetches should be clean, mellow and rich. The seed may be sown in drills or broadcast. A good seeding for either soiling or hay is about three pecks of vetches and four pecks of oats per acre. The vetches are ready to feed any time after the crop comes into blossom and before the seed commences to ripen. For soiling the crop may be hauled to racks, or be distributed on the sod of a pasture field as soon as cut, or it may be allowed to wilt in the swath for a few hours. Vetch hay is made in much the same manner as clover or timothy is handled. Vetches may be pastured by sheep, but this is a wasteful practice, as much of the crop is destroyed by tramping."

Sheep raisers who do not already possess a copy of this bulletin would do well to order one from the Live Stock Commissioner at Ottawa.