Filling the Silo.

Bulletin No. 48, of the Kansas State Experiment Station, gives their six years' experience with ensilage, from which we take a few points applicable to our conditions.

The time has gone past in the more advanced parts of North America, where stock raising is the right arm of agriculture, to argue the benefits of the silo. Each year sees the erection of more silos than the one previous, and were money a little more plentiful, the number put up this year would have been enormous.

To the beginner there is always a felt need of a few pointers on filling, etc., which we will endeavor to give from this Kansas bulletin and our own knowledge.

In Kansas, as in more Northern latitudes, corn is the main silage crop. It has been found that there is no crop which will yield more nutrition to the acre, one year with another, than corn.

When there is a large acreage to be handled, the harvesting should commence when the grain is in the milk or soft dough, as then the grain frequently hardens before completing the filling. The proper time to fill is when the grain is in hard dough and the lower leaves begin to get yellow. At the Kansas Station, as at the Guelph Station, the one-horse sled cutter is most in favor for cutting the crop in the field. It is provided with two knives, which are hinged to the body of the sled and can be folded in on the sled when not in use. [An illustration of this sled was given in the FARMER'S ADVOCATE, Aug. 15th, 1894.] It has been improved and made easier to pull by providing it with four low and broad cast-iron wheels, but that makes it more difficult to guide. It is pulled by a single horse, and cuts two rows at a time. Two men stand upon the cutter, each facing a row; as the corn is cut they gather it into armfuls, which they drop in heaps on the ground. A wagon with a low, broad rack follows, on which the corn is loaded and hauled to the silo. The advent of a machine by which the heavy corn can be loaded directly onto a wagon will be heartily welcomed. When this low wagon is used for hauling the corn to the silo, there should be a raised platform beside the ensilage cutter upon which the load can be driven, so that the unloading will be done down hill. In this way the cutter can be easily kept full. Without this platform arrangement, we doubt the advantage of the low wagon, as it is better to provide an extra hand or two in the field, to do all the elevating there, than to have any lost time at the barn. Load the stalks across the wagon, reversing the ends of each layer; the bundles can then be lifted separately and slid down a slanting platform into the cutter.

Judging from the present prospects, the cutting sled will be all right this season between rows that are three feet or more apart, but where the corn is rank and at all twisted or lodged, better results are secured by using the sickle hand-cutter. The old-fashioned sickle or reap-hook is still used by the majority. There is also another implement liked by many, the blade of which resembles about a foot of a scythe blade next the heel, except that it has not the heavy back, but is about as thick throughout as an ordinary sickle. The edge differs from the old sickle in being serrated or scalloped. The handle is just a straight piece of wood about a foot long, having a leather loop which the hand grasps along with the handle. The loop is attached to the handle by means of a screw-nail, and relieves the necessity of grasping the handle tightly.

At the Kansas Station the corn is cut into half-inch lengths, which packs tighter and is more cleanly-eaten by the stock than when cut longer. There is a good deal written and spoken in favor of the shredder for preparing corn for the silo, and we have every reason to believe that the claims advanced in its favor are fully warranted, as by it the corn is reduced to a pulp, extremely palatable to the stock and packable in the silo.

A few years ago it was thought necessary to keep a man in the silo during filling, to level the corn and tramp it down around the edges and corners; even yet the Kansas Station and many others adhere to that method, but according to John Gould, of Ohio, who is an authority on silo and ensilage, the man in the silo can be better dispensed with. Just as long as John kept a man tramping and spreading, just so long had he spoiled ensilage. Now he sends a man in for a few minutes every two hours, and the silage is all good from top to bottom. Mr. Gould's plan is this: To arrange a platform, five feet square, at the center of the top of the silo, upon which the ensilage falls from the carriers of the cutter. The silage forms a cone, about five feet high, which sheds the heavy and light corn to all sides alike, always leaving the centre the lowest. If the sides or corners are getting a little slack, the platform is given a slight turn to throw the corn into the lower spots. The last load of each day is run into the centre by removing the platform. In this way the sides and corners are evenly and equally filled, and is tramped or pressed down by its own continuous weight. The eighth load tramps the seventh, and all before it, and so on all the way up. A few days after filling, it will have settled sufficiently to hold several more loads, which are put in by the same method. The Kansas Station people cover their silo with a layer of six or eight inches of fine green grass, and this covered by a few loads of earth, which excludes the air fairly successfully. Just here, again, John Gould claims to have found an easier and better way. After the corn is all in and well-leveled and tramped on the top, about twenty pails of water is sprinkled over it and one or two pails dashed down into the corners. This forms a dense mat or blanket of mould a few inches thick, which makes a better covering than almost anything else that has been tried. After the water is put on, never put a foot upon it until ready to commence feeding, or it will break the mould and admit air.

THE VALUE OF CORN FODDER AND ENSILAGE.

O. P. Clinton, Waukesha Co., Wis., writes the Prairie Farmer as follows:—"I built a round silo three years ago. It holds 120 tons, and cost $140. The feeding value of an acre of ensilage is from $15 to $30, according to crop—fed mostly to cows. Fed some to sheep with good results. Corn fodder, if well-cured and saved, is worth four-fifths as much as ensilage; but these conditions rarely obtain, and hence, generally is worth about half."

Fall Wheat Growing.

Mr. James Miller, Brougham, Ont., reports as follows:—

Comparatively little fall wheat has been sown in this part of the County of Ontario in recent years. At one time this was one of the best localities for the profitable raising of it, and the older settlers got so infatuated with the profits that the dream remained long after the reality. They grew it years after it ceased to be a paying crop, and it was very lucky for them that the growing of barley held out remunerative inducements for a number of years afterwards, but it, too, now has failed. I think with a return of better prices for wheat, farmers will return to it again. There has been an increase in the number of bushels to the acre realized during recent years.

All things considered, the present winter wheat crop will turn out as profitable a grain crop this season as any the farmer has raised. The heads are long and the berry plump and bright. It wintered well, and got a good start in the early spring—before the drouth set in. The frost in the latter part of May hurt it considerably, but it was remarkable how it recovered. The straw was a good length, which the farmers in recent years more highly prize than formerly. It is turning out from 20 to 25 bushels to the acre.

Our soil is a clay loam (but somewhat varied) naturally rich in both vegetable and mineral matter.

The neighboring farmers generally sow fall wheat now after an Alsike clover crop, as it has many advantages, found out from practical experience based upon theoretical or technical knowledge, which is that clover deposits nitrogen in the soil and wheat takes it out again (in the form of albumen and gluten, of which the grain of wheat is for the greater part composed) faster than nature deposits it.

It might be profitable as well as interesting to your many readers to know that the amount of nitrogen contained in the roots and stubble of an ordinary clover crop will amount to from 150 to 180 lbs., while a crop of winter wheat yielding about 25 bushels to the acre will only take out about 35 lbs., so that it will be easily perceived that by such a system of farming the land would be built up, as well as the direct profit realized, as many of your readers can testify that have tried the experiment, Alsike clover yielding, as it generally does, from 6 to 7 bushels per acre.

Barnyard manure is not so generally used now on the winter wheat land, as a largely increased acreage is now grown with roots and corn, which requires the whole of it. Some grow a green crop of buckwheat instead of the bare summer-fallow of olden times, and plow it under when about at the blossom stage, previous to sowing their winter wheat.

All things considered, a usual crop of Alsike followed by a similar wheat crop at, say, $1.00 per bushel, ought to be two fair paying crops, and with comparatively little labor; but I would not recommend a too frequent repetition, as the land is apt become dirty.

It appears to me the best method to plow the clover stubble only once and harrow it over about twice at intervals afterwards with the spring-tooth harrow to retain the moisture for the reception of the seed. The wheat should be sown about the 1st of September, so that it may get a good top before the winter sets in.

The varieties sown are principally the Clawson and Democrat.

APIARY.

Ill-Shapen Combs.

Mr. G. M. Doolittle, replying to a correspondent in the American Bee Journal, explains why bees build ill-shapen combs. As the thick, clumsy comb is usually found near the edge of the rack, some suppose the cause to be low temperature at that point while building is going on, but this theory is not sanctioned, because comb building never goes on at a temperature below 95 Fahr. The real reason is given as loss of the queen. The writer states that he has often discovered that a colony has lost its queen by the style of comb being built. That not nearly as nice comb is built when a colony has no laying queen in the hive is one of the reasons why he does not like the plan of taking away the queen to prevent swarming.

The Horseshoers' National Protective Association of the United States is being extended into Canada.

DAIRY.

Winnipeg Industrial Dairy Test.

Following are the results of the dairy test for the special prize offered by the Pure-bred Cattle Breeders' Association at the Winnipeg Industrial Exhibition. Test was conducted by Mr C. C. McDonald, Provincial Dairy Superintendent.

Name.	Breed.	Owner.	Years.	Months.	Days.	Days since calving	Thursday Morning. Lbs. of Milk.	Thursday Morning. Lbs. of fat.	Thursday Morning. Lbs. of fat.	Thursday Noon.	Evening.		Total lbs. milk.	Lbs. of butter 80 butter-fat.	
Maud	Ayrshire	J. S. Cochrane	7	4	10	39	7.75	4.7	.35	3.9	.66	8.75	4.0	.35	33.50	1.37	No. 3
Pride of S. B.	Shorthorn	R. L. Lang	5	4	18	22	14.00	4.6	.66	3.0	.86	14.00	4.6	.64	56.75	2.16	No. 2
Tempest	Holstein	Christie & Ferris	12	7	35	10.00	3.8	.38	19.75	2.8	.55	12.50	3.4	.42	42.25	1.35	No. 4
Tempest 3rd	"	"	7		5	9.50	3.4	.32	19.25	2.8	.53	9.50	3.0	.28	38.25	1.13	No. 6
Daisy T. 2nd	"	"				22.	5.0	1.10	32.50	2.75	.89	17.75	3.6	.63	72.25	2.62	No. 1
Beauty	Ayrshire	Jas. Glennie				6.75	4.5	.30	16.75	3.5	.58	7.75	4.0	.31	31.25	1.19	No. 5
		Mrs. Hemsworth															

Cold Storage for Cheese, Butter, Etc.

As stated in the July 15th ADVOCATE, sufficient butter was not on hand to fill the cold storage compartment in the first steamer fitted up at Montreal, under the direction of Dairy Commissioner Robertson, and the space was filled with cheese. Regarding this the Liverpool Post says:—

"Since its arrival in Liverpool we have had an opportunity of inspecting the cheese thus shipped. The consignees express themselves as highly satisfied with the outcome of the experiment. The cheese, which in all comprises upwards of 840 boxes, has been warehoused in the very pink of condition. The paramount object in shipping cheese hitherto has been to obtain as great an immunity as possible from 'sweating' of the article. Not only does the cheese itself become impoverished in quality by 'sweating,' but foreign flavors are imparted, owing to the presence of other cargo in the hold of the vessel. The new experimental process adopted by Prof. Robertson in the instance under notice not only prevents 'sweating,' by reason of the refrigerating resorted to, but also by isolation absolutely precludes the possibility of any foreign flavor being contracted. The whole of the boxes of cheese received are quite free from 'sweating' marks and as fresh as when first taken on board the Mongolian. Hence, it is not at all improbable that Prof. Robertson's method as applied to cheese, if not prohibitive in point of cost, will at no distant time find universal acceptance."

A NOTE FROM THE DAIRY COMMISSIONER.

Editor FARMER'S ADVOCATE:

SIR,—I think a modified form of cold storage at the port of shipment, and insulated compartments on board the steamships, will be adopted for all shipments of cheese during the hot weather. We have suffered considerably from the want of that in the past, as our cheese have in many cases arrived in such a heated condition that they were apt to go off flavor and become deteriorated in the English market. That would have wholly been avoided if suitable cool rooms had been provided in Montreal in connection with insulated compartments on board the steamships.

Our arrangements for the refrigerator car service on the railways, refrigerating accommodation in Montreal, and insulated compartments on board