

Soil Treatment After Harvest.

1. Clover or other sod land should be plowed as early as possible in the fall for either a corn crop or grain crop. The reason for early plowing is to give the old sod a chance to rot partly before the ground is frozen. If manure or other fertilizers be put on before plowing, I think it would be better than to wait until the next spring.

2. I think that if sheep were turned into a stubble field after harvest, they would keep down the weeds pretty well; and then if the land was plowed late in the fall, during a dry time, there would be not much chance for weeds next season. I think the same principle would suit for either a grain crop or a hoed crop.

3. (a) I have never sown millet, rape or buckwheat after the grain harvest is removed, but would think it should work just right for either after pasturing or bettering the condition of the soil. (b) I think stock should not be allowed to pasture off clover of this year's seeding, as the roots may be bared too much, and therefore more liable to be killed by frost the coming winter. (c) I am in favor of harrowing, top-dressing, and sowing seeds in old pastures late in autumn.

Prescott Co., Ont.

J. W. BROWN.

The Importation of Turkey Red Wheat for Seed.

To the Editor FARMER'S ADVOCATE:

SIR,—All you have printed on the questions of seed wheat and wheat-growing are timely and interesting.

To get a refund of the duty from the Government it will be necessary to take a certificate from each purchaser, and on presentation of these certificates the duty will be refunded through the Millers' Association, on whose urgent application the Government made this concession. The conditions on which the refund is to be granted are that the wheat be sold at cost, as stated in the form of which we send you a copy.

To sell it at \$1.00, as we propose doing, will barely cover expenses, and if any of it has to be cleaned after we get it, or, as is quite likely, the cars run out a few bushels short of the invoices, the sellers will be that out of pocket, but we think the parties handling will be quite pleased to see the experiment get a fair trial even if they are a few dollars out of pocket.

We understand the reason for taking a certificate from the farmer to show that the wheat is to be used for seed is that when the matter is brought before Parliament, as it will have to be, the Minister of Customs may have proof to show that the rebate was granted for the purpose stated, and not as a privilege to some of his friends, as might be charged by the Opposition if no proof were forthcoming to the contrary.

THE GOLDIE MILLING CO., LIMITED.

Ayr, Ont., Aug. 4th, 1900.

[NOTE.—A list of those who will handle this wheat appeared on page 435 of the August 1st FARMER'S ADVOCATE.—EDITOR.]

Tent of Live Stock Associations and Farmers' Institutes at Toronto.

Industrial.

A tent for the accommodation of members of the Live Stock Associations and Farmers' Institutes will be located, as usual, near the cattle ring on the grounds of the Toronto Industrial Exhibition, August 28th to September 7th. Mr. A. P. Westervelt, Secretary Ontario Live Stock Associations, and Mr. G. C. Creelman, Superintendent of Farmers' Institutes, will be in the tent each day from 9 a. m. to 12 o'clock (noon), and will be pleased to meet anyone connected with the Farmers' Institutes or Live Stock work.

The tent will be provided with seating accommodation, and will be at the disposal of the agriculture and live stock associations for the purpose of meetings.

Writing supplies will be provided, and it is hoped that those interested may make this their headquarters while attending the Exposition.

Milling Qualities of Winter Wheat Overlooked.

To the Editor FARMER'S ADVOCATE:

SIR,—Re the need of a new and better milling variety of winter wheat, I have read with interest the letters in your issue of 1st August on this subject, and I think they are much to the point. There is no doubt of the need of a winter wheat containing more gluten, and the question is how to get this combined with hardness and good yielding properties. The farmer is bent on growing the wheat which gives the most bushels per acre; but there is no reason why a better milling wheat than we have now cannot be grown which will give as good yields. The question of "milling properties" seems to have been overlooked in selecting new varieties of wheat. The aim has been too much towards large yield and plenty of straw.

The two principal varieties grown here are Dawson's Golden Chaff and Red Clawson, and of the two I find Golden Chaff preferable. The old Treadwell was one of the best wheats for strength and color, but, like some others, it has disappeared.

I introduced the Egyptian Amber here, from St. Thomas, about twenty years ago. It did very well

for some years, and proved to be one of the best milling wheats I have ever used. Only a few continue to grow it. I send you a sample.

Of the Kansas wheat I cannot speak from experience, as I have not tried it.

Halton Co., Ont.

ROBT. NOBLE (miller).

Kansas Winter Wheat at the Ontario Agricultural College.

In 1893 the Ontario Agricultural College imported eleven varieties of winter wheat from Kansas, four from Indiana, one from Iowa, six from Ohio, etc. The Turkish, or Turkey Red, wheat, was one of the varieties imported that year, and has therefore been grown at the College in each of the past seven years. We again imported fresh seed of the Turkey Red variety in 1896, and sowed both the Canadian and the Western grown seed in the autumn of that year. The results from the two crops in 1897 were slightly in favor of the Canadian-grown seed, but were almost identical, there being a difference of less than one peck in the yield of grain per acre. The annual report of the Ontario Agricultural College for 1898 gives the average of five years' results of tests with each of 48 varieties in strength of straw, weight of grain per measured bushel, and yield of grain per acre. It also gives the comparative hardness of the grain of each variety as determined with an apparatus similar to one invented by Prof. N. A. Cobb, of Australia. The tabulated results on page 134 are followed by a report of about 1,000 words specially dealing with the relative hardness of the grain of the varieties there given, including the Turkey Red, the Dawson's Golden Chaff, and the Early Red Clawson. Rather than recommend any one variety of winter wheat for Ontario, the College publishes from time to time the exact results of practical experiments and then allows those interested to make their own selections. The report closes with the following remarks: "The varieties which the farmers are likely to grow are those which they can usually harvest with the least amount of labor, and that will produce the greatest financial returns for the time and labor in growing the crop. The requirements of the market, however, should be closely watched, and the aim be to grow those varieties which will give the best results, and at the same time furnish that quality of grain for which there is the greatest demand. A careful study of the results of our experiments with winter wheat will greatly aid in this selection. Work is now being done in the Experimental Department with the object of improving the best varieties of winter wheat by means of careful selection and by cross-fertilization. The College reports are printed by the Ontario Department of Agriculture, Toronto, Ont., and are distributed from there to all who apply for them. In the winter of 1898-9 from 85 to 90 per cent of both the Dawson's Golden Chaff and the Turkey Red varieties were winter-killed. Both varieties, however, came through the following winter in good condition.

The following are the average results of the field tests for six years with both the Turkey Red and the Dawson's Golden Chaff:—

	Turkey Red.	Dawson's Golden Chaff.
Relative hardness.....	Hardy	Hardy
Strength of straw.....	Weak	Strong
Height of crop (inches).....	42.8	46.7
Nature of head.....	Bearded	Bald
Date of maturity.....	July 17	July 18
Amount of rust.....	Slight	Some
Color of grain.....	Red	White
Weight of grain per measured bush (lbs.).....	61.9	60.3
Yield of straw per acre (tons).....	2.6	3.4
Yield of grain per acre (bu.).....	41.3	56.7

The College Report for 1898 states that the grain of the Turkey Red was harder than that of any other variety in the crop of 1896, and that the grain of the Turkey Red and the Pride of Genesee was the hardest of the varieties mentioned for 1898. The Dawson's Golden Chaff was referred to as a softer wheat, and the Early Red Clawson as being the softest of the red varieties. Mr. Robert Harcourt, of the Chemical Department of the College, has been doing some work within the past two years in determining the gluten-content and the bread-yielding power of some of the varieties of winter wheat grown in Ontario, and as the work continues the results are becoming of increased value.

Men of long experience in handling wheat differ greatly in their judgment of the value of the Dawson's Golden Chaff variety. Within the past week the writer invited leading millers of Guelph, Galt, Preston, Berlin and Bridgeport to pass judgment upon the comparative value of two varieties of winter wheat for milling purposes. These were the Dawson's Golden Chaff and the Treadwell, both of which were grown at the College this year. The judgments were made separately, and resulted in three of the millers selecting the Dawson's Golden Chaff as the best wheat, and the other three selecting the Treadwell as the best wheat. The Treadwell sample must have been a good representative of the old-time Treadwell wheat, as Mr. S. J. Cherry, of Preston, who has been in the milling business for many years, stated that he never saw a better sample of the Treadwell wheat than the one shown him, and the Goldie Bros., of Guelph, considered it to be of extra good quality, and, in fact, the very best of the 36 varieties of white wheats grown at the College this year.

In the autumn of 1898, Mr. Peter Shirk, of

Waterloo County, imported a carload of seed of the Turkey Red variety of winter wheat from the State of Kansas, but as the wheat did not reach Ontario until very late, only a small amount was sown that autumn. A somewhat larger amount, however, was sown in the fall of 1899. In order to ascertain the results from growing this wheat on different farms, the writer recently went to Mr. Shirk's place at Bridgeport, and was given the names of the persons residing near Bridgeport and Berlin who had grown at least a few acres of the Turkey Red wheat this year. Six growers were called upon, and the following gives the report made by each:—

Peter Shirk.—Four acres very rich land; crop badly lodged; 25 bushels per acre; about 64 lbs. per measured bushel.

Richard Quickfall.—Four acres; killed out badly in spots last winter; very bad straw, resembling barley straw; estimated yield 12 or 13 bushels per acre.

Moses Beltzner.—Eleven and a half to 11½ acres; excellent wheat land, which formerly yielded 50 bushels of the Fultz variety of wheat to the acre; in 1899 plowed under a crop of clover and also applied farmyard manure; crop leaned badly; yield of grain this year, 425 bushels; weight of grain per measured bushel from the machine about 63 lbs.

Menno Bowman.—Three acres; clover sod; very weak straw, being about one-half down; total yield of grain, 80 bushels.

Elias Kolb.—Nine acres; corn ground; not as strong straw as some varieties; estimated yield, 30 bushels per acre.

J. H. Shepherd.—Three acres; badly winter-killed in spots last winter; straw crinkled like barley.

It will be seen from the foregoing reports that the results obtained from growing the Turkey Red variety of wheat in Waterloo County and at the Agricultural College are very similar.

We have found from our experimental work with winter wheat that very frequently the season has a much greater influence than the variety in determining the quality of the grain. For instance, the weight per measured bushel of the Turkey Red was 64.5 lbs. in 1898, and 55.1 lbs. in 1897; and that of the Dawson's Golden Chaff was 61.6 lbs. in 1898, and 53.5 lbs. in 1897. It will be remembered that in 1897 there was an exceptionally wet harvest, and that a large amount of wheat throughout Ontario was sprouted that year. I understand that there was a large export trade from Ontario of flour made from the wheat grown in 1897, and this might have had something to do with the reputation of our flour in the foreign market.

Within the past ten years a good many varieties of winter wheat have been distributed to farmers throughout Ontario who applied for them for testing upon their own farms. Great care has been taken in the selection of the varieties for distribution, and some kinds, such as the Jones' Winter Fyfe, Bulgarian, or Democrat, Pride of Genesee, Diamond Grit, etc., have been sent out owing to their quality rather than their yield of grain. Farmers, however, have found that all varieties would sell for about the same price per bushel, and therefore have grown those kinds from which they could secure the greatest profit, hence the great popularity of the Dawson's Golden Chaff with the farmers of Ontario. The varieties to be distributed this year have again been carefully selected, and two sets will be sent free by mail to farmers applying for them who will carefully test the three kinds in each set which they choose, and will report the results after harvest next year. The seed will be sent out in the order in which the applications are received as long as the supply lasts.

SET 1.	SET 2.
Dawson's Golden Chaff.	Dawson's Golden Chaff
Early Genesee Giant.	Turkey Red.
Stewart's Champion Red.	Diamond Grit.

Each person wishing one of these sets should apply as early as possible, mentioning which set he desires, and the grain, with instructions for testing, and the blank form on which to report will be furnished free of cost to his address, until the supply of grain for distribution is exhausted.

Much additional information regarding the value of the Turkey Red winter wheat for Ontario will undoubtedly be secured this year. Not only will it be tested in the co-operative experiments throughout the Province, but as several millers are importing seed from Kansas, an opportunity will be afforded the farmers of Western Ontario to grow it in large quantities, and the millers can then grind the variety by itself and thus be better enabled to determine its value for both the home and the foreign trade. The results will be watched with interest by both the millers and the farmers.

C. A. ZAVITZ.

Agricultural College, Guelph, Ont., Aug. 10, 1900.

Kansas Will Spread Itself.

Kansas, in celebration of the fiftieth anniversary of her admission into the Union as a territory, proposes to hold in 1901, at Topeka, her capital city, an interstate exposition, to which the world will be invited. A strong organization has been effected to plan and carry forward the undertaking, and the preliminary work has already vigorously begun. F. D. Coburn, Secretary of the Kansas Board of Agriculture, is the present head of the directory, and Capt. H. M. Phillips, of Topeka, is the Secretary having matters directly in charge. The promoters of the enterprise promise that Kansas, through this 1901 exposition, will reveal herself to the world in an attractive light hitherto little suspected by those who at a distance have unwittingly regarded her as merely a part of the wild and woolly West. An exposition showing the transformation wrought in the half century and of her attainments in that time must excite wonder and admiration.