

THE FARMER'S ADVOCATE & HOME MAGAZINE

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It is impartial and independent of all cliques or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable information for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

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Our Subscription Prizes.

In our advertising department, page 491, will be found a description of a number of subscription prizes. All goods offered by us are warranted as represented, first-class in every particular. The rings are solid gold and the stones of good quality and well-set. The watch is a curiously cheap device, but a substantial time-keeper, and we believe will give good satisfaction. The live stock offered will be selected from the herds and flocks of the most reliable and capable breeders. The other premiums are meritorious. Our subscription pictures, "Canada's Columbian Victories" and "Canada's Pride," are fine works of art, not cheap prints or chromos. We ask every old subscriber to send us at least one new name.

The Russian government has issued new regulations concerning the manufacture and sale of margarine and all artificial substitutes for butter. Special inspectors, who have received technical and medical education, will visit these establishments and analyze the products, with authority to impose fines or close the works, for infringement of the regulations.

Brandon Experimental Farm.

It affords us much satisfaction to devote a few columns of our space to record the successful experiments carried on at the above farm during the past summer. The season, on the whole, was good, though somewhat too dry, and the hot winds and weather of August, when the harvest was nearly ready, caused considerable damage by unduly hastening the ripening and shelling out the more matured grains. Comparing the results, however, with that of the average farms of the district, the inevitable conclusion must be that thorough cultivation and improved methods will do much—very much—to better the returns on our farms, and more especially in such a season as the past has been. When we see a yield of thirty-six bushels of wheat per acre, ninety-one of oats and fifty-seven of barley, it should serve as a stimulus to our efforts—a high ideal for us to strive after. But all acquainted with the model superintendent of this farm would expect nothing but success from so conscientious, painstaking and enthusiastic an official.

The benefits derived from the farm are not confined to the farmers resident in the province, but many visitors from all parts of the continent—in fact, of the world—annually visit this institution, and cannot fail to be impressed with the vast resources of our fertile prairies, and the good impressions thus created will yield fruit in due time.

As an evidence of the ever-growing popularity of the farm, there has been an increase of upwards of 6000 visitors over last year, making a grand total for the year just closing of 11,000, of whom the great majority were farmers or persons more or less directly interested in agricultural pursuits.

The correspondence has also largely increased, showing that a wider interest is being taken in advanced agriculture—in fact, the people are *thinking*.

Last winter, in the February 20th issue of the ADVOCATE, were published very full reports and tables of the various experiments in grains for the year 1892, and we herewith present a review of the experiments carried on in the season just past, adding several very interesting tables on averages covering results for a number of years. And we herewith publicly desire to express our gratitude to Mr. Bedford for his assistance in preparing the matter. On our recent visit everything was found in ship-shape order. Cattle and horses all in fine, thrifty condition, contentedly chewing away at their rations of *straw*; hay is a luxury they see little of. Sheep or pigs there are none—more's the pity, as feeding experiments with these "mortgage lifters" would be particularly interesting just now. The poultry house and runs are just completed and are models in their way, and we hope next year to have some practical experience from the business hen.

The windmill erected on the big barn has given great satisfaction, and has not cost a dollar yet for repairs; it is a twelve-foot steel wheel, and will, with a moderate wind, pump eleven barrels of water per hour, with a stiff breeze will grind sixteen bushels of oats or eight bushels of barley per hour, or will cut a ton of fodder corn in nine minutes.

If every farmer had a big barn rigged with a windmill, pump, crusher, etc., how comfortably the winters would pass.

Much has been done during the past season in setting out trees, shrubs, etc.; some work also has been put on the drives and roads to good purpose. One of the first things to be noticed by a visitor is the beautiful, even and rapid growth made by the maple and spruce trees along the main drive and boundaries. What has, perhaps, more than any other thing conserved to this end is the thorough system of cultivation around these trees, a weed never being allowed to go to seed in these borders, and the surface being kept absolutely clean. But we will give fuller particulars of the trees and shrubs later on. A large implement and grain sample barn has been erected this fall, which will prove of great assistance in selecting, sorting and storing the sample grains. Another important work begun and almost completed this fall is an under drain to take the water out of several hollows, so as to give uniformity to the plots. About 4,000 feet of tile drain has been laid as main drain—it is not intended to lay any system of branch drains. Coming to the experiments proper: In fruit trees some progress has been made. The apple trees down on the flats are all alive, being so situated as to be well covered with snow every winter. A few specimens of the "anis" give some promise of bearing in the future. In crabs the "Transcendant" still holds supremacy. In plums and cherries everything has been a failure except the native plum, which, however, promises to be

very useful. Small fruit, currants, gooseberries, have done well; of the former there is now a nice collection of some twenty-five varieties.

A daily record of rainfall, sunshine temperature, winds, etc., etc., is kept. From April to September, inclusive, only 6.9 inches of rain fell, so that it is needless for us to remark that it was a dry season in that portion of the Province. The sun shone out in all his splendor over the western prairies for 1507 hours during the period from March to September, both included.

TESTING SEED BEFORE SOWING.

Very serious losses have occurred every year from sowing seed that has been damp and heated. One man we heard of who lost his entire crop of 640 acres from this cause. The remedy is at hand, and if any shadow of doubt exists as to the fertility of seed, send a small sample to Ottawa and have it tested; it will not cost you anything, and may save a crop.

In order to ascertain the average fertility of good, sound grain, Mr. Bedford had tested 49 samples of wheat of 1892 growth, .91 per cent of which grew; 41 samples of oats, .97 per cent grew; and 34 samples of barley, .90 per cent of which grew—so that any grain .90 per cent of which does not germinate should not be considered safe.

SUMMERFALLOW AND COUCH GRASS.

Further experiments have been conducted in summerfallowing. The Superintendent considers a stiff-legged cultivator, made with teeth wide enough to overlap an inch, as being by all odds the best implement for use on heavy soils, after testing many others for the past few years. Special attention was this season paid to summerfallowing couch grass, which is becoming such a frightful pest in many parts of the Province, especially on the lighter soils. Two varieties of grass are the chief sinners. The true couch grass (*agropyrum glaucum*), or "Colorado Blue Stem," is of a bluish-green shade; flowering period is the first half of July. The grass that is perhaps causing most trouble is not couch grass proper, but the "sweet grass," or "holy grass" (*hierochloa borealis*), with a light green blade; flowering early in May and easily known by its sweet scent.

To rid land of the latter, one plowing only seems to cultivate it, but two plowings, one early in May (the usual June plowing for summerfallow allows this grass to mature its seed), and another a little later on, with thorough cultivation with harrow and cultivator, have almost entirely conquered it.

CULTIVATION OF FALL PLOWED LAND.

Sown with Press Drill on May 2nd, 1 1/2 bushels per acre, soil black loam, summerfallow—bluestoned, no smut or rust. It has generally been considered necessary to have land fall plowed for wheat, and it has been advocated that the more work put on the land in the fall in the way of harrowing, rolling, etc., the more moisture would be retained in the soil, and consequently the better crop. The tests along this line, however, show that the more cultivation the worse the results and the more weeds (of course, the harrows would not tear out as many weeds from smooth, finely worked land as they would from land left rough). It will also be noticed by the appended table that the summerfallow comes out ahead in yield, but is a few days later in maturing:—

Variety.	How treated.	Weeds.	Length of straw.	No. of days maturing.	Ripe.	Yield per acre.	Weight per bu.
Red Fife.	Summerfallow.	None	43 in.	108	Aug. 19	26.30	59
" "	Fall plowed only.	"	37 "	104	" 14	23.30	59
" "	Fall plowed and harrowed twice.	Few	35 "	104	" 14	22.40	60
" "	Fall plowed and harrowed and rolled.	Weedy.	38 "	103	" 13	21.30	58
" "	Fall plowed twice harrowed and rolled.	Very weedy.	32 "	103	" 13	19.10	60

EARLY MEDIUM AND LATE SOWN WHEAT.

This test shows some variation from that of the past years, owing, no doubt, to the difference in the seasons, still, the earliest sown ripened first, although this year the second earliest sown gave the largest return.

Red Fife again proves the heaviest yielder, and ripened this year as early as Campbell's White Chaff.

When sown.	Variety.	Length of straw.	Length of head.	Rust.	No. of days maturing.	Ripe.	Yield per acre.	Lbs. per bushel.
May 2nd.	Red Fife.	43 inches.	4 inches.	None.	108	August 18th.	bush. lbs.	59
" 9th.	" "	43 "	3 "	"	104	" 21st.	28 10	60
" 16th.	" "	43 "	3 "	"	100	" 24th.	28 50	60
" 23rd.	" "	43 "	3 "	Little.	96	Sept. 1st.	25 40	56
" 30th.	" "	34 "	3 "	"	98	" 3rd.	22 10	61
June 6th.	Campbell's White Chaff.	42 "	3 "	"	108	August 18th.	23 30	60
May 2nd.	" "	46 "	3 "	"	104	" 21st.	23	57 1/2
" 9th.	" "	46 "	3 "	"	104	" 28th.	17	57
" 16th.	" "	36 "	3 "	"	101	September 1st.	15	57
" 23rd.	" "	30 "	3 "	Badly.	96	" 3rd.	15	57
" 30th.	" "	34 "	2 1/2 "	Very bad.	95	" 9th.	12 30	59