THE FARMER'S ADVOCATE.

Dominion Experimental Farms.

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The following are the figures showing the results obtained from uniform trial plots of grain and fodder corn on the Experimental Farms of the different Provinces under the supervision of Direct-or Prof. Wm. Saunders, LL. D., F. R. S. C., etc.

Name of Variety.	Ottawa, Ont.	Nappan, N. S.	Brandon, Man. 26	Indian Head, as a start	Agaestz, B. C. Strand	Average of all "900 Farms.	Average of all Farma, from Sow- ing to Harvest- ing.
	Bush Lbs.	Bush Lbs.	Bash Lbs.	Bush Lbs.	Bush Lbs.	Bush Lbs.	Days
Banner. Golden Beauty American Triumph	85 10 80 78 18	99 14 76 16 84 4	100 76 26 57 32	94 94 99 98 97 88	54 24 44 9 48 8	86 24 73 15 73 10	106 1-5 107 2-5 112
White Russian Holstein Prolific Holden Giant	77 2 76 6 75 30 74 94		00 30 20 20 20 20 20 20 20 20 20 20 20 20 20	89 10 79 4 103 28 89 4 75 10	57 2 46 16 53 18 50 25	73 22 4 72 4 77 21 78 25	105 2-5 105 4-5 104 1-5 106
Tandon	73 28 73 18	82 12 58 28	70 .: 62 32	63 28 75 20	41 6 45 10	66 8 63 8	1139 1111 105 4-5

TWO.ROWED BARLEY.

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ewton	- 51 22		44 68	36 18 1	6 41 30	101 3-5
anadian Thorpe	49 28 1	7 24 32	34 65	42 2	441 9	
inver Chevalier	49 8 2	6 12 32	44 42	24 38 2	8 37 49	103 3-5
letor	. 48 0 2 9	6 32 32	20 46	2 16 3		104 3-5
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rench Chevalier	. 45 43 3	1 12 41	2 73	16 44	8 47 6	102
epean	. 40 30 1	3 4 30	101 21	24 15 1	0138 12	101 2-5

SIX-ROWED BARLEY.

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SPRING' WHEAT.

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Duke	2	40 20	50 40	43 1	3 20 37	52 115 4	5
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New Potter	0 30	35 20	54 40	32 20 2	0 36	46 112	
Prince Albert 4	0 20	30	52 40	40 1	6 40 35	56 115	
Daniel O'Rourke	0 20	45 20	50 20	25 1	7 40 35	40 106 4.	5
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INDIAN CORN GROWN IN ROWS.

1.—What estimate do you place upon the careful selection d cleaning of seed grain i Kindly outline your method. 2.—How do you prepare fall-plowed ground for spring eding! Mention the sort of cultivator preferred — straight oth, disc, spade, spring tooth, broad tooth, etc., —giving mesons for your choice; also, refer to harrowing and rolling fore and after seeding.

-Which do you prefer, drilling or broadcasting se

and why! 4.—Fellowing what crops do you secure the best yields of peas? How do you prepare the ground and how do you man-age to escape the bug? 5.—Outline what you consider the best method of securing a catch of clover and grass seed. 6.—Have you had any experience with lucern and orchard grass; if so, kindly give your impression of either or both for pasture, solling, hay, or for improving the soil ? 7.—What variety of cats, barley, peas, and spring wheat do you find give the most general satisfaction ?

Places a High Estimate on Clean Seed.

Places a High Estimate on Clean Seed. 1.—Too high an estimate cannot be placed upon the careful selection and cleaning of seed grain. So much depends on the land, some varieties doing much better on one kind of soil than on another. As a rule I think long-strawed varieties do best on light and shorter strawed on rich, heavy land. Early varieties on the latter often escape rust. It is a good plan to procure seed grown on heavy land for light, or vice versa. The published reports of the Experimental Farms should be read carefully. In course of time all kinds of grain are apt to deteri-orate ; when this is first noticeable it is time to select a new variety. Good seed grain should possess these qualifications : Large yield, good quality, stiff straw, and freedom from rust, smut, and foul seeds. As I make a specialty of raising grain for seed, I import it from different parts of the world and test it for two or three years, and if it does well I then dispose of it for seed. In cleaning I run it through the mill until it is quite clean and no light grains or foul seeds are left in it. The last time it is run through the mill I take all the riddles out and simply leave the grain board and a screen at the bottom in, turn fast, and open the blinds as much as the kind of grain being cleaned will allow. This will take out all light seeds and light grain and leave only good, plump grain for seed. Of course, if grain happens to be very dirty so that the mill will not separate it I would not sow it on any account. 2.—As soon as a crop has been taken off I gang

the mill will not separate it I would not sow it on any account. 2.—As soon as a crop has been taken off I gang plow as shallow as possible to allow my foul seeds to sprout, then later in the fall plow deep. On heavy land it is sometimes best to run a cultivator over wheat stubble, as a gang plow is apt to put some weeds, such as wild flax, too deep in the ground, and a little latter on gang plow. In the spring I cultivate the land until it is in good tilth, then drill in the grain and harrow immediately after. Some kinds of cultivators are best for heavy lands and in the grain and harrow immediately after. Some kinds of cultivators are best for heavy lands and others for light. A spring tooth answers well on the latter and a spade or broad tooth on the former. I have not had much experience with a disc, but know on heavy land if sod is plowed in the spring and a disc harrow run over it it makes a fine seed and a disc harrow run over it it makes a fine seed bed. One thing is very important and what I believe is rarely done, and that is to keep the cultivator teeth sharp. On light land I never roll until the grain is up some inches, with the exception of peas, which I roll rightafter they have been sown and harrowed. On heavy soil that is liable to bake I consider it best to roll before sowing, but much de-nends on the condition of the land

pends on the condition of the land. 3.—Drilling is better than sowing broadcast on light soil, as it puts the grain down deeper in the soil and it gets more moisture. On heavy land oats and barley seem to do well sown broadcast. If drilled in, the drill should be set to sow shallow. Peas on all land are best drilled in. 4.—After hay or pasture. A sod plowed in the spring, harrowed well, and the peas drilled in. I sow early in June to escape the bug. 5.—Prefer to sow timothy in the fall with wheat and the clover in the spring on the wheat as soon as possible. Barley is the best spring crop to seed down with, the previous crop being roots, the land having been well manured for the latter. Might here add that I am a great advocate for green manuring, such as plowing down clover, etc. The more this is done the more likely we are to get a catch of seed. 6.—Have grown lucern on sandy ground and like it very much. It is very valuable for soiling, and makes good hay for all kinds of stock if cut at the right time, which is just when it is coming out in flower; if left too late it becomes woody. It makes good pasture, but does not want to be eaten down too close so as to injure the crown. I consider it one of the best crops to grow for improving the soil, as it draws nitrogen from the atmosphere and its roots penetrate deep down into the subsoil. and its roots penetrate deep down into the subsoil. Have only had a little experience with orchard grass. It grows very quickly and ripens much earlier than timothy, therefore the two should not be sown together for "hay." I sowed it with timothy and other grasses for pasture, and the first year cut it for hay. I cut it when the timothy was ready the consequence was the orchard grass was ready ; the consequence was the orchard grass was overripe and wiry and the stock would not eat it. It ripens about the same time as red clover. As it grows in tufts it is better sown in mixtures. It is very valuable in a mixture, as it comes on so early. 7.—The last few years Challenge (white) and Black Tartarian seem to have given the best satisfaction in oats, but last year the former had a considerable amount of smut in it; the drawback to the latter is its tendence to rust. I grew two new kinds which I imported two years ago from England, where they were then introduced for the in time, viz., the white oat, Newmarket, and Golden Tartarian. The former is a heavy, his oat, very early, stiff straw, and grand yiel oat, very early, stiff straw, and grand yiel tarian, but golden in color, a better yielder, noted for its exceedingly stiff straw. The Boo and common six-rowed barley seem to be the m popular. The two-rowed is very little grown b now. Peas-small white field, Multiplier, and m rowfats. I grew the Prussian Blue, and am pleased with them. Very little spring wheat grou in this section of the country. It does not seem do well now. J. E. RICHARDEON Brant Co., Ont. Brant Co., Ont.

TO BE CONTINUED.]-

Mr. Macpherson's Pastures and Corn. the Editor FARMER'S ADVOCATE :

In reply to your letter of inquiry reperment pasture, I might say that the pastures that I from are not permanent, but set down for two of meadow and then three years of pasture. is done by seeding down after the second cru hy sowing gats or barley on the three of meadow and then three years of pasture. This is doue by seeding down after the second crop of corn, by sowing oats or barley, on the thin side not over 14 to 2 bushels per acre. The seed is use ally 10 lbs. timothy, 4 lbs. red clover, 3 lbs. Alsike 2 lbs. white, 3 lbs. red top, and 3 lbs. June grass this is sown after the grain and then well rolled. The first year's crop of hay is largely clover. Af-ter the crop is harvested, during the month of Aug-ust, this is top dressed with 12 to 15 tons of well-preserved stable manure, having ample cut straw to absorb the liquid. This dressing causes in all cases a vigorous growth, and is allowed to grow free from any beast to graze on until late in the fall. After this grass grows up it covers over the manure, and thereby holds the fall dews and abov-ers sufficient to completely rot the manure without fermentation. It is thereby settled close on to the ground and becomes soil within one year. The roots of the grass in this way are stimulated to vigorous growth in the soil and protected from the severe frost at the same time. The following year a full crop of timothy, red top. June grass and white clover hay is cut late in June. With this treatment an assured crop of two to four tons is always cut, and by cutting this early in the season, with such vigorous roots developed by favorable conditions, and the surface of the soil enriched by well-rotted stable manure, a very large and vigor-ous growth of pasture grass is thereby established when pastured by cattle for fully three years. I might here say that a fair comparative estimate of the mik-producing value of pasture can easily be obtained by an estimate of the smount of hew a pasture plot would produce if left to be made into hay. One pound of hay made into hay in this way obtained by an estimate of the amount of hay pasture plot would produce if left to be made int hay. One pound of hay made into hay in this way would, if pastured and made into milk, make on pound of milk; hence, an acre of pasture white would produce 1,000 lbs. of hay would produce 1,00 lbs. of milk, and an acre of pasture producing 4,00 to 5,000 lbs. of hay would in the same way produc 5,000 lbs. of milk. This, of course, is a basis of calcu-lation, and from carefully observed experiment an lation, and from carefully observed experiment and calculation this estimate is a fair one. The tend-ency is that owing to the increased labor which cattle have to expend in securing their forage on sparse pasture, a milk cow would scarcely give 1,000 lbs. of milk on poor pasture estimated to give in hay only 1.000 lbs., the same cow or cows would give over 5.000 lbs. of milk from pasture calculated to give 5,000 lbs. of hay per acre. lation, and from carefully observed experiment and Corn. - The ensilage corn which I have four to do best on very rich soil and give the largest and richest amount of feed per acre is the Mammoth Sugar. The next best is Cloud's Yellow dent and Sugar. The next best is Cloud's Yellow dent and Mammoth Cuban. The advantages of the Mam-moth Sugar are quantity and quality and con-dition; in very rich soil over 40 tons per acre can be raised. The stalks should be grown three to four inches apart in the row, and the rows 34 to 36 inches apart. Stalks nine to ten feet high will grow, having one, two and three developed eare; maturesearly and makes the best of ensilage for milk or beef. Cloud's Early Yellow dent and Mammoth Cuban will, under similar favorable circumstances, produce about the same amount of feed per acre. Sod land intended for corn should only be plowed in the produce about the same amount of feed per acre. Sod land intended for corn should only be plowed in the spring, and only just before planting time. Stub-ble land should be plowed in both fall and spring. The reason that corn sod land should only be plowed in the spring and just before planting time is that the corn needs warm, open soil; and when the sod is turned down full of green grass it at once starts fermentation, and the large quantity of air in the interstices of the furrows leaves the most favorable conditions of warmth and openness. most favorable conditions of warmth and openness. Corn planted under these conditions will usually Corn planted under these conditions will usually give ten to twenty per cent. larger yield per acre and of better quality, as it will grow faster, more regular, and mature better. The best stage of growth for ensilage corn to be harvested is when the grain is full formed on the ears, and is in good "boiling-corn" condition. The further maturing of corn than this tends to make it more indigest-ible, and much of the nourishing parts of the grain pass through the cattle undigested. Glengarry Co., Ont. D. M. MACPHERSON.

MARCH

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OUR INQUIRIES.

To the following questions sent out to a number of representative farmers we have received replies given below and in the following issue :

The Best Farm Paper.

JAMES MCCRAE, Simcoe Co., Ont., in a business letter under date of January 21st, 1897, writes :-"I am much pleased with the FARMER'S ADVOCATE. I would not like to do without it. It is the best farmer's paper I know of." Also sends names of several new subscribers.