

Reports on Fall Wheat Desired.

We respectfully request our readers to send us reports of any experiments they have conducted in their fall wheat fields, or any valuable observations they have made. We are especially desirous to receive reports from any who have used commercial fertilizers, or who are growing two or more kinds of wheat. We are desirous to learn the comparative yields of the various sorts in the different sections of the province, and will spare no pains to obtain the desired data and to publish full and valuable reports. We invite the hearty co-operation of the farming community. Write us so that your letters will reach us not later than the 18th of July, and let us know how the different sorts have done with you.

Lathyrus Sylvestris.

On page 174 of the May number of the ADVOCATE were given particulars of the Lathyrus Sylvestris. In order to test the plant, we bought and sowed a quantity of the seed. Since then we have received a number of letters from farmers, asking for fuller particulars regarding planting, culture, etc. These questions are answered as follows by Mr. Francis E. Clotten, of London, England, who is the general agent for the seed:—

DEAR SIRS.—Your favor of recent date to hand. I mailed you to-day in six strong, linen paper bags, registered, three pounds net of Professor Wagner's improved cultivated, constant, best strain Hungarian-grown Lathyrus Sylvestris, a forest flat pea seed, as a consignment, and in order to enable you to fill to that extent any seed orders you may get from Canadian farmers during June and early July, which is, in your country, by no means too late to sow, provided the land to be sown then has been plowed up and harrowed some four to six weeks previously, and is fairly aerated and mellow for receiving the seed.

Canadian farmers should take particular note that this Wagner's Lathyrus detests and rejects nothing so much as raw, fresh plowed up sandy soil, and on such land germination is almost always very bad. Farmers who wish to go in for Lathyrus sowing in autumn next, from last week of August till early in October, or let me say, at the same time when winter wheats are sown there, should get any land to be sown with this Lathyrus plowed up at once—the sooner the better—at least twelve inches deep; deeper by preference, so to stir and unloose the upper layer of the subsoil. This Wagner's Lathyrus appreciates a seed bed of fine tilth, and answers the more liberally the more preparatory care has been given to such seed bed. This is a uniform experience everywhere; moreover, it pays well to bestow such preparatory care to the land to be sown.

The farmers there cannot be sufficiently and often enough impressed with the fact that thorough and timely preparation of the soil in which this Wagner's Lathyrus is to grow is seven-eighths of all the difficulties and dangers brushed aside, and complete success assured. Many failures and defective results have been due here, and also in two or three instances in North America, to no other cause than raw, hard, not sufficiently aerated and developed soil in which the seed was sown. I wonder whether an Ontario vine grower or fruit grower ever expected to get a good crop from a vine or a fine strain fruit tree by simply sticking a piece of vine or a seed, or rather a cutting of a fruit tree, in hard land or on a poor sandy soil? If so, and if he gets any results, a happy man is he,—a glorious country Ontario, and to be envied. I would never do it, and I have been a vine grower from childhood, on the Rhine, in South Africa and here.

I send you copies of letters which I received from the Hon. O. Clute, President of Michigan State Agricultural College and Director of Michigan State Agricultural Experiment Station, written on Oct. 12th, 1891, as follows:—

"The ten pounds of Wagner's Lathyrus Sylvestris seed procured of you last Spring germinated well, though slowly, as it took them four or five weeks to come up. The young plants have however grown well and are now in fine condition. We have recently had four severe frosts, but the plants are not at all affected. I shall watch with greatest interest their conduct during the next twelve months under the severe conditions they will be exposed to on the sandy land here. I would like to secure 50 to 100 lbs. of Wagner's Lathyrus seed, for which quantity please state lowest rate."

Writing again on February 25th, 1892, the Hon. O. Clute says:—

"I was able to make to our State Board of Agriculture a most encouraging report concerning the growth of Wagner's Lathyrus Sylvestris last year, and am authorized to procure from you a further quantity of seed as offered by you. Present appearances of last year's Lathyrus plant indicate good results next season. The thermometer has registered here 23 degrees below zero this winter, and as soon as the frost is out of the ground and the plants have had a chance to start, I shall report to you how they have wintered."

This is what the Hon. O. Clute writes on April 25th, 1892:—

"The Wagner's Lathyrus plants have wintered well. Every plant is starting vigorously, and that means much, considering the thermometer had been several times as low as 23 degrees below zero last winter. I have just commenced digging out and transplanting a number. Truly, these plants have the most wonderful development of roots and nodules I ever saw. The roots seem to go down—to China."

The following was received by me from Messrs. W. Drummond & Sons, Stirling, N. B., the well-known seedsmen:—

"The Wagner's Improved Lathyrus Sylvestris plants we had from you in Autumn, 1889, gave a much more abundant crop the second year than they did the first. We exhibited a bunch of it at the Highland Society Show this year, alongside a bunch of ordinary tares reaped from a corresponding area, the weight of the tares being much inferior to that of the Lathyrus crop. We made no experiments in feeding stock."

The following report was published by the Rev. J. B. McClellan, M. A., Principal Royal Agricultural College, Cirencester, England, in the Agricultural Students' Gazette:—

"In the summer of last year (1890) an old student (T. Huband, Esq., Cheltenham), presented us with a small packet of the much belauded Wagner's Lathyrus Sylvestris, procured from Mr. F. E. Clotten, London, and we set aside one of the large botanic garden plots for an experiment on its growth and suitability to our soil and climate. The seeds were divided into two portions, one of which was sown in a hot-bed, and the resulting seedlings were transferred to pots, finally hardened off, and planted out in one portion of the bed. The remaining seeds were sown direct in rows in the bed, and came up very strong and vigorous, forming a close, compact sward."

"When the bedded plants were put out side by side with the free sown, the former were of much greater length, but looked naturally more feeble in growth, and as a matter of fact they never acquired such a healthy strong appearance as the rest. Some died off, first presenting a yellow, sickly lower leaf and stem. Examination of the roots showed no trace of eel-worm or other cause sufficient to explain this dying off. A little nitrate of soda was given, and the diminution was stayed after its application, but up to the present that portion of the bed is markedly less successful than the rest. In September no flowers had been formed; we had sown too late to expect it, so it was decided to allow the plant to remain uncultivated for that year. The exceptionally hard winter did not appear to damage the plant in any way, and by the end of May there was a strong healthy growth of a very rich sap-green color on the free sown part of the bed. The bedded out plants were good in color, but loose and straggling, owing to blanks by death. On the 22nd June we cut and weighed the green crop from the free-sown bed. It gave on the most careful estimate eleven and a-half tons per acre. From a small plot it is unsafe to give figures calculated to acres, as the plant has a habit of spreading freely over the edge of the bed; but, on the other hand, if the rows were numerous and no free edge to spread over, the plant would raise itself higher by means of the support afforded by its neighbors, and the result would probably not be found so far out if compared with larger plots. The green crop was carefully sun dried without exposure to any rain, and lost eighty-four per cent. of its green weight. In cutting, the gardener mowed it off rather close, but in ten days, thanks to abundant rain, a very fine after-math was already showing, of rich deep color."

The hay is being subjected to analysis in the Chemical Laboratory.

In the December number, 1891, of the Agricultural Students' Gazette, Professor Edward Kinch, F. I. C., F. C. S., etc., publishes the results of analysis as follows:—

WAGNER'S LATHYRUS SYLVESTRIS OR WOOD PEA.

Analysis of the hay of Lathyrus Sylvestris (Wagner's) grown in the Botanic Garden, and made into hay July, 1891:—

Water.....	13.68 per cent.
Ash.....	6.29 "
Fat, etc. (ether extract).....	2.13 "
Fibre.....	22.90 "
*Nitrogenous matter.....	24.75 "
(N x 6.25).....	30.25 "
Soluble carbohydrates.....	100.00 "

*True albuminoids.....	18.25 "
Total nitrogenous matter in dry matter.....	28.67 "
True albuminoids in dry matter.....	21.14 "

Of total nitrogen 26.2 per cent. in non-albuminoid. This hay is remarkably rich in nitrogenous matter; in composition it agrees with that grown in other places, though when grown in rich soil it is said to be even richer in nitrogenous matter.

As above stated, Mr. Clotten has sent a quantity of seed to us, which he instructs us to sell at \$10 per pound, which seems to us a high price; but from experience we know that new and improved plants cannot be put on the market as cheaply as the originators desire. Prof. Wagner is said to have spent thirty years in perfecting this plant.

The Farmers' Grist Mill.

In our February number "Thorah Farmer" made enquiries concerning grist mills owned and operated or the benefit of farmers by joint stock companies. At that time we were not aware of any such existing corporations, but immediately set about making enquiries. By the kindness of Mr. J. Taylor, of Nottawa, we succeeded in learning the address of several parties, who willingly gave us much valuable information. We find there are many mills in Canada owned and operated by joint stock companies which were founded by farmers, and all the stock owned by agriculturists. We have made many enquiries regarding these companies, and find that in every instance that came to our notice the results are satisfactory. The following articles have been received from farmers who have had experience with mills owned and operated by farmers' companies. To these gentlemen we extend our sincere thanks, and we are quite sure many thousands of our readers will feel very grateful for the information so kindly sent. To Mr. Taylor and Mr. McKee we are especially indebted. We wish there were thousands of such men throughout Canada, and that each was as ready to come to the help of his brethren. We invite farmers everywhere to write us full particulars of their successes and failures. Your experience may be useful to others, or perhaps others of our readers will come to your aid, as these gentlemen have come to the aid of "Thorah Farmer":—

To the Editor of the FARMER'S ADVOCATE:

DEAR SIR,—In reply to your letter I will try and give a condensed outline of the history of our company. The farmers of this section, like "Thorah Farmer," were dissatisfied with the manner in which they were used by the millers, and in April, 1890, a public meeting was held to discuss the propriety of forming a joint stock company and building a mill.

At that meeting it was resolved that an effort be put forth to form a company, to be known and incorporated as the Nottawasaga Farmers' Milling Company, Limited, with a capital stock of \$10,000, to be divided into 400 shares of \$25 each. A committee was appointed to carry out this object, and about the end of June this committee succeeded in getting sufficient subscribers to warrant them in organizing as a company. Consequently, a general meeting of stockholders was held, when three provisional directors were elected, who were instructed to apply for incorporation under "The Ontario Joint Stock Companies' Letters Patent Act." Meantime the directors purchased a site and let contract for building a mill, and also for putting in machinery. In September we received our charter of incorporation, and on the first of January had our mill ready for operation. The mill is run by steam; its capacity is 50 to 60 barrels per day. We have also a "chop stone," that grinds from 10 to 14 bags per hour. The plant, when completed, including cost of incorporating and mill site, cost about \$9,000; and I might say here, for the information of "Thorah Farmer," that the stockholders are principally farmers, and the affairs of the company are managed by a Board of Directors, who are exclusively farmers. The company have been fairly successful in their operations. We do custom work on the exchange plan. Our exchange tariff is:—

For wheat testing 62 lbs. or over, we give 40 lbs. flour, 10 lbs. bran, and 3 lbs. shorts.
For wheat testing 60 and 61 lbs., we give 39 lbs. flour, 10 lbs. bran, and 3 lbs. shorts.
For wheat testing 59 lbs., we give 37 lbs. flour, 11 lbs. bran, and 3 lbs. shorts.
For wheat testing 58 lbs., we give 35 lbs. flour, 12 lbs. bran, and 3 lbs. shorts.
For wheat testing 57 lbs., we give 31 lbs. flour, 13 lbs. bran, and 3 lbs. shorts.
We charge 7c. per bag for chopping, or take 8 lbs. for toll.

We ground in grist during the year 25,000 bushels of wheat and chopped 6,430 bags of grain. The earnings of the mill, over and above expenses, amounted to about \$650. But we give in exchange three pounds of flour more to each bushel of wheat than the millers in this section gave before we started operations. You can readily see that this during the year would amount to a saving of about 32 barrels flour. The average price of flour during the year was about \$1.50, so that the amount of saving to the patrons of the mill would amount to \$1,719. This is the financial results of the year's operations. To us, at least, they are very gratifying, but we leave it to your readers to form their own conclusions. As to the manner in which we do business, I might say that we give a receipt to each