

issippi, Spring Creek, Sunset, Sedgely, Silver Heights, Shady Dell, Shawondasee Dell (the dell where the south wind plays), Strath-Garney, Spring Creek, Stillwater, Stonehenge, Stockwell, Sylvan Nook, Stoneleigh, Shrubland, Sunny Ridge, Sandy Knoll, Seven Oaks, Shagganappi (harness).

Thorny Croft, The Firs, Twin Elms, The Heights, The Oaks, The Beeches, Teighton, Tonawanda, Thirlestane, Tullibardine, The Hermitage, Thanatopsis, The Wolds, The Gap, Trout Run, Turfhill, Treesbank, Treasure Land, Three Hills, Terra Nova.

Ullwick Grange, Unimak, Uppingham, Utopia, Underwood.

Vira Vosa, View Point, Valley View, Verdant Valley.

Willawana, Wildwood, Woodbine, Winnibago, Waterside, Wheatland, Willowgrove, Woodslea, Wascana, Whinicha, Wynehurst, Weyanwega, Wau-

kesha, Wadena, Wiomosa, Winnemak, Woodlawn, Waburn, Waw-Bewawa-Dell (the dell of the white goose), Woodhill, Wayside, Wood Dale, Willow Glen, Woody Lea, Wa-Wa-Tashee, Wa-Wa-Dell, Willis Dale, Willow Grange, Windermere, Wideacres, Wideview, Woodland, Wildwood, Waw'beek (rocky), Wabasso (north), Wonderland, Wah-wah-taysee (fire dy).

Yarrow.

Zalmunna, Zephyr.

THE VITAL PROBLEMS OF THE SEEDING SEASON.

With the approach of another spring, the purpose and plan of every farmer ought to be to make the crops of 1911 surpass those of every previous year. Is not this possible in so far as results depend upon seed and tillage? As farmers, experience has taught us many things; observation and reading, others. Will it not pay us to take stock of the knowledge gained? Here are a few plain questions to talk over in "The Farmer's Advocate," for mutual benefit:

1. To what extent do improvements in yield and quality of grain, including corn, depend upon (a) change of seed, irrespective of variety; (b) the introduction of new varieties; (c) selection of seed on the farm? Examples may be cited of marked benefits arising from any of these means.

2. Moisture being the conveyer of food in the soil to growing plants, what part, compared with the above means, does tillage play in crop improvement; and what implements, new or old, have proved of most distinct advantage?

3. What plan has been found best to secure supplies of seed corn and grain pure and free from weed seeds?

4. Under what circumstances, if any, may the same crop be grown in succession on the same land, and how often?

Doubling Grain Crops.

Editor "The Farmer's Advocate":

I am pleased to see that the farmers of our country are taking such an interest in discussing through your valuable paper important questions concerning farming operations.

As to the extent in improving yield and quality of grain on the average farm, thorough tillage, the careful selection of seed and variety, and painstaking preparation of same, our grain crops might be doubled, or nearly so. For one who has a good variety of grain, and is careful in every detail, no benefit is derived from changing seed, unless he is sure of getting something better than he has. Unless new varieties have been well tested and have proved superior to the old, the average farmer had better leave them alone. But, on the other hand, it is well to be on the outlook for new and better varieties, and secure them without delay. If they prove satisfactory, he may be able to dispose of good seed grain to his neighbors at a price that will well repay him for the first outlay and extra work. The question is often asked, "How am I going to keep up the standard of my seed after obtaining it?" Be very thorough in preparing your seed. Clean it as often as is required to save only the large, plump kernels. Then, at harvest time, select the field or part of the field that is the best, and save that for seed. Often after a hoe-crop we get good clean grain that is good for seed, and, if mowed away so that it can be threshed and kept separate from the rest, and this is kept up from year to year, there will be no running out of seed or need of a change.

Now, after time and labor have been spent in securing good seed, let us look at the tillage, which, after all, plays a most important part in growing grain; in fact, is it not the most important part? We may have good seed and good land, but if that land is not well worked and the seed put in in good condition, how can we expect a good harvest? A man may have a well-bred calf and plenty of good feed to give it, but unless he prepares that food so that it will be in the best possible condition for the growing of that calf, he cannot expect to raise a good animal. A man with any knowledge of his work can prepare a good seed-bed with a plow, harrows, cultivator and seed drill. Land having been worked after harvest, plowed in the fall, then cultivated in the spring with a broad-toothed cultivator, and brought into good tilth with the harrows, should be in a condition to receive the seed and produce an abundant harvest, if weather conditions are at all favorable.

We have always bought our seed corn on the cob from corn-growers in Essex, and in so doing have had good satisfaction. We nearly always sow our own seed grain. If at any time we purchase any, it is generally from some farmer who has been successful in winning prizes in the field-crop competition, and received a good score for being free from weeds.

We do not approve of growing the same crop in succession on the same field, if it can possibly be avoided, although it is sometimes done. Occasionally we take two crops of oats off the same

field, but only when something comes in the way to interfere with our rotation. Our reason for not doing this is that no two crops require just the same amount of plant food to grow them; and if you grow the same crop two or more years in succession, there will not be the same amount of plant food in the land to sustain it. Be thorough in all your seeding operations, and at harvest time you will reap the benefit. "As a man soweth, so shall he reap." W. H. A.

Bruce Co., Ont.

Eight Rules for Big Crops.

Editor "The Farmer's Advocate":

With regard to changing seed, I would not advise the purchase of large quantities of any kind of unknown varieties of seeds. Seeds that suit one kind of soil and climate may not suit another. The introduction of new varieties in small quantities is essential. Test them two or three years; give them field conditions. If worthy of a place, grow them. If not, cast them out and try again. Selection of seed on the farm is one of the best methods of increasing our crops, both in quantity and quality. First, hand select from the standing crop; secondly, hand select from the shock; thirdly, a fanning mill is one of the very best investments on the farm, when properly used. No grain should be sown without first putting it through a fanning mill two or three times. By means of thoroughly cleaned grain, with heavy, large, plump seeds, 10 bushels per acre can be secured over the uncleaned seed, to say nothing of the weed seeds in the uncleaned grain. Of corn for husking, 10 to 20 bushels per acre have been secured by selection of the best cobs and planting the best seed from the center of the cobs. Of corn for ensilage, two to three tons per acre more have been gained by the same method; and, of roots, two to three tons per acre by recleaning the seed and sowing the best.

Conservation of moisture is accomplished by after-harvest cultivation, thorough stirring of the soil particles to absorb all rainfall during summer, autumn and spring for the future crop; thorough plowing in the autumn (October preferred); the deeper, the better, but do not bring up any of the subsoil. Loosen the subsoil at the time of plowing several inches deep; the deeper the subsoil is loosened early in autumn, the greater will be its capacity for holding moisture, and the roots of plants will find a much freer and deeper feeding-ground. The old-time plow, with the old-time plowman, who was never afraid to appear at one of the best educational features, the plowing-match, can be used in the foregoing process to most distinct advantage. The subsoil plow should be used in the autumn only. This implement is old, and yet unknown to the majority of farmers. If most soils were subsoiled once in four years, or once in the rotation, there would be very much less anxiety for showers during the growing season, as the subsoiled land will hold tons more moisture than land not subsoiled. The deeper the cultivation—always in the autumn—keeping the plant food on the surface—the greater will be the harvest. Spring cultivation should be very shallow, but thorough.

Having secured a variety of seed corn grown for grain that will ripen and give a good yield, we select fresh seed from the very best cobs. Of seed corn for ensilage, usually the early dent varieties are used, those coming well to the glazing state, or riper, if possible. The seed is generally purchased on the cob, the best cobs selected from the bulk, and thoroughly sized with the fanning mill. In case of field grains, by growing one's own seed, selecting, AND BY THE THOROUGH USE OF THE FANNING MILL, we obtain the best.

A systematic rotation of crops should be adopted, as far as possible, on every farm, as it is not good farming to sow grain on the same soil two years in succession. When this is done, the soil becomes exhausted of plant food upon which that particular crop feeds. When different crops are grown, it economizes the natural supplies of fertility contained in the soil, as different crops feed upon different soil ingredients, or, at least, they require these ingredients in varying quantities. A proper succession of crops bring all the elements of plant food into use, and hence prevents any of these from lying idle and being wasted. Rotation improves the mechanical condition of the soil. In every well chosen scheme,

sod-surfaces or green crops are turned under. It also tends to the enrichment of the surface soil. This is owing to the variety of modes in which plants obtain their food. Some, like clover, beans, peas, and other nitrogen-gatherers, draw large supplies of plant food from the air, and also from deep down in the subsoil, and by the decay of rootlets and their consequent change to soil.

The greatest success will come to the farmer who adopts the following: (1) A systematic rotation of crops; (2) thorough after-harvest cultivation; (3) keeping the plant food on the surface; (4) deep, autumn cultivation, especially with the subsoil plow; (5) spring cultivation, shallow, but thorough; (6) selecting the very best seed grown on one's own farm, after it has proved itself good; (7) growing clover with every crop of grain, excepting peas; and (8) turning under the green, fresh clover sod not later than the second season. Big crops cannot help but follow.

JOHN FIXTER.

Good Seed and Proper Preparation

Editor "The Farmer's Advocate":

I take it as quite a high compliment that you should request me to discuss the important matters of improved seed and preparation of seed-bed through the columns of "The Farmer's Advocate."

Every farmer should steadily endeavor to so manage his operations to improve the conditions of his soil, so that the seed sown this present year will have a distinct advantage in its chances of success over that of any previous year.

It is cheering to note that each year shows a growing interest manifested by farmers generally in the splendid work of the Seed-growers' Association, in standing-crop competitions, and in the various exhibits of seed grain which are held throughout the country.

It is safe to say that anyone who will give careful and intelligent thought to the choice of seed grain, who is willing to pay a reasonable premium for high quality, who will get in touch with some of the men who are paying especial attention to seed improvement, who will place his order early—and who will do that other thing—can easily add 50 per cent. to his profits.

A few years ago I got a quantity of Dawson's Golden Chaff wheat from a prominent member of the Seed-growers' Association, residing in the neighboring county of Waterloo, and the results were exceedingly gratifying. I tried to make a hand selection from this pedigree grain, but found that I lacked the necessary time, skill, patience, judgment, keen sight and observation required to obtain satisfactory results, so I have decided that my wisest course is to use, to the fullest extent possible, the labors and experience of men more competent to deal with this matter of selection.

Last fall I placed my second order with my Waterloo friend for enough pedigree seed wheat to sow 30 acres, from which I hope for satisfactory results next summer.

It would be easy to cite other instances in my own experience, and in that of many of my neighbors, most of whom are wide awake to the advantages of seed grain of superior quality.

Having decided that a certain variety is worth growing at all, I like to get enough of that particular seed to sow all the ground I have; and so it doesn't get mixed with other grain in the rush of harvest and threshing.

Now that other thing, "Tillage"—proper preparation of the seed-bed.

A well-known hotelkeeper had a favorite saying, "Drink light and often, boys." "Light and often" should be the farmer's watchword in the tilling of the soil.

With us, the frequent use of the two-furrow plow has proved the most beneficial factor in conserving moisture, in destroying weeds, and in preparing a fine seed-bed. We plow the ground for fall wheat in July, and work it down with cultivator, disk and harrow, and then plow again early in September.

For spring grain, we plow immediately after harvest, work it all we can during the fall months, and plow again before winter comes on.

For roots and corn, we have followed the above plan in the fall, manured during winter, and plowed twice again in the spring. It doesn't take long to turn over a field with a good three-horse team, and it saves a lot of strenuous work later on in killing weeds.

This year, however, we departed from that