

## Wheat While You Wait

The following rather interesting clipping is taken from the Boston Sunday Globe, and tells of an English professor who has discovered a process of seed treatment which makes seed "less positive" to the soil with startling results.

In this marvellous age the wonders of science fail even to startle; but the discovery by an English professor of a method of raising wheat and other crops in just half the time usually occupied by normal growth promises to be one of the most important achievements of this very wonderful age.

Prof. John J. Melville announces the discovery of a substance for treating seeds—particularly wheat and similar cereals—in such a way that the crop is up and ready for harvesting in nine weeks instead of the usual 18.

If Prof. Melville's discovery is all that his friends claim for it we are on the eve of a revolution in agriculture. It is about time that the farmer had his innings. His life so far has been one dismal drudgery "from morn to dewy eve." Of course it does not follow that even with this new method of obtaining phenomenal crops all the farmer will have to do from now on is to sit on the front porch, smoke a big cigar and list to the growing of the grass. Not at all. At the same time half of Hodge's most laborious work will be done away with. Deep plowing, intensive cultivation, the use of chemicals and manures will no longer be necessary. Even the seasons are to be eliminated from the category of things which the farmer must seriously consider before planting his seeds.

At the little village of Burnham-on-Crouch, in the southern part of England, recently, a farmer named R. J. Suter, planted a bag of seeds which had been treated in accordance with Prof. Melville's method. The seeds were first put in the ground on July 19, and the first visible signs of growth appeared July 24, five days later. On Sept. 16—only eight weeks and three days after the sowing—the wheat was up and in full head. In fact, so prolific had been the growth, that the stalks actually choked each other.

Nor is this all. When farmer Suter first received his bag of treated seeds, he was so skeptical of results that he did not even prepare his field properly for their reception. In the first place, to begin planting on July 19 was three months after the date generally recognized for such operations in England. Season, weather and time conditions were all against it.

The life of the seed was supposed to be at its lowest ebb. The field was only lightly plowed over and harrowed once. It was not even weeded. When the farmers in the district saw Suter putting down wheat in a field treated in this way, one of them emphatically remarked: "Old Suter is a fool."

To Suter's astonishment, however, five days after sowing, the wheat appeared above the ground, and in nine weeks the acre and a quarter of land devoted for this purpose was ready for reaping. There was a splendid growth of what is known as "two-breasted" wheat. So strong was this wheat and so full that it even resisted a severe wind-storm which swept over the country and flattened all the other crops of standing grain in the neighborhood.

Friends of Prof. Melville were sure that the remarkable discovery would be challenged on all sides, and they took the precaution to get five of the best known citizens in the district to put their signatures to a document attesting the date when the wheat was sown, July 19; the date when it was first visible, July 24; the date when the ground was rolled, August 1, and when the first ears appeared, September 16.

The way this crop has come up has certainly "astonished the natives." It will enable farmers to whom he imparts it to gather two crops a year, to sow independently of the weather or season, and to do away entirely with the present expensive necessity of weeding. Crops grow so rapidly that they come up and can be reaped long before weeds can grow sufficiently high to do any harm.

So important is this discovery considered in England that government officials are already making serious enquiries concerning the matter. After all, it is so gigantic in its bearings that it would of necessity become a government affair. The nation adopting this system

of seed treatment would necessarily become at once the first cereal growing country in the world.

Sowing seeds treated by this process will further revolutionize agriculture to the extent that wheat will no longer be thrown broadcast, but the separate grains will have to be put down at certain distances apart, just as Indian corn is sown today.

Prof. Melville has not hit upon this discovery by accident, as is often the case with scientific "discoveries," but he has been working along these lines for a number of years.

When seen recently the Professor said: "The process I employ in treating seeds is based upon an entirely new principle.

"The process itself," he continued, "takes me about three weeks. It is not a process where one simply makes up a mixture of chemicals and dips the wheat in, or something of that kind, but is a method on entirely novel principles.

"The force I introduce reduces the seed to a more negative (electrically speaking) state than it is normally. I regard the ordinary seed as being in an unduly positive condition. Nature, to alter that, has to take time, and time is money to the farmer.

"But that is only part of the process, and the rest must remain secret, at any rate, for a time.

"I think it will be possible to get two crops a year off the land; one sown in March and the other in June. Certainly it will be feasible if one crop be a crop like peas or beans and the other a cereal.

"I do not think I am unduly hopeful when I say that I think in the future wheat will grow in a manner that can best be described as on bushes, and each bush will be from one seed.

"It will divide the amount of seed needed to be sown by at least three.

"I made a test recently with barley, taking one grain. From that one grain I got 3300 grains on 54 stems. The second year they gave one bushel, and in the third year that bushel resulted in 43½ bushels, all from one single seed in three years.

"Crops so treated, sown in the spring, will be up in time to be ripened by the summer sun, and there will be much less risk of loss; for farmers will not have to wait for the autumn, with its doubtful weather and waning sun, before harvesting. Those crops will yield more.

"It is commonly supposed that seeds obtain most of their strength from the soil. I don't hold that view. Of course, the soil is absolutely essential. It is part of the necessary treatment, but I should say that, roughly speaking, about two-thirds of the strength and nourishment of plants are derived from air."

If the British government takes this matter up and seeds are supplied to British farmers at a price within the reach of everyone, England will before long become a grain producer.

### STORING MOISTURE IN THE SOIL Conclusion of Three Years' Investigations At Nebraska Sub-Station

1. That land which is under thorough cultivation absorbs water much more freely than land not under cultivation, or which is covered with grass or for any reason has a hard surface.

2. That land under thorough cultivation loses but little water from below the first foot, by surface evaporation, so long as the mulch is kept in good condition.

3. That a growing crop uses water from the land in proportion to the growth of dry matter in the crop.

4. That land under summer tillage or thorough cultivation from May 1 to September 1, on the Nebraska sub-station farm has accumulated from 5.3 to 7 inches more water in the first six feet of soil than similar land growing a crop. The water so stored has been equal to from 4 to 50 per cent. of the rainfall for the same period. The moisture content on summer-tilled land increases below the six-foot area and is apparent to a depth of at least 10 feet.

5. That water stored in the subsoil to a depth of at least six feet is available for the use of farm crops, and that alfalfa is able to draw water from much deeper areas.

6. That abundance of water in the subsoil is a great protection to the crop against drouth, and that moisture in the



## Let Santa Claus Bring You a New Scale Williams Player Piano for Christmas

The record of this wonderful instrument is unique in Piano history. In less than six years it has swept away prejudice, has bowled over the moss-whiskered arguments used so commonly in piano vernacular.

You are not buying a Piano because your Great Grandfather had one of that kind. You may reverence antiquity, but when you spend your money, you want merit and the products of modern thought.

The age is travelling on. The old prairie schooner of 50 years ago is widely separated from the aeroplane of today. The Player Piano bridges the chasm which has stood so long between your home and good music. It opens up a new world to the one who does not play by hand. Anyone can now play the music of the great masters or the simplest melodies with all the expression and feeling, all the exquisite charm of the most skillful pianist.

A practically unlimited number of selections are available. Play by hand, without using the player mechanism, if you prefer.

### The Player Piano as a Christmas Gift

No greater wisdom could be shown in the selection of your Xmas Gifts than to include a piano. It will not only play an important part in the rejoicing and festivities of the holiday time, but it will brighten and cheer your home for many years to come, and it will be a source of Education and recreation for your family, a good investment and a permanent one.

Let us send you an illustrated Catalogue telling about this musical marvel. Sold to reliable parties on our Educational Plan of payment.

Develop your Emotional Nature, bring out the finer feelings. Music takes away the sordidness. It appeals to the best in men and women. Let its soothing and cheerful influence brighten your home life, beginning with this Christmas. You owe it to yourself and family; it is a necessary part of their Education. Write us now.

**CROSS, GOULDING & SKINNER LIMITED**  
323 PORTAGE AVENUE :: :: WINNIPEG, MANITOBA

WHEN WRITING TO ADVERTISERS PLEASE MENTION THE GUIDE

surface soil, while it may favor the immediate growth of the plant, does not protect it against prolonged drouth. The protection of the crop against drouth is in almost exact proportion to the total available soil water within the reach of the crop.

7. That grass crops (alfalfa and brome grass) dry the subsoil to such an extent that the first crop following grass is wholly dependent on the season's rainfall for its moisture supply.

8. That a rainfall of from a quarter to a half-inch may have a decidedly beneficial effect upon a growing crop, and is of great assistance in securing a good

stand at seeding time. Such a rainfall has little or no effect in increasing the water in the lower soil unless the surface is already moist from previous rains. Less than a half-inch of rain falling on a dry soil mulch does not wet the soil below the mulch and is soon evaporated by the sun and wind.

Nine-year-old Lizzie was taken to her first classical concert the other night. "How did you like it, Dot?" inquired papa, who had been too busy to attend.

"Most of it was tiresome," said the child, "but there was one lady who gargled just beautifully."