The point for the Canadian feeder and breeder in this discussion is the possibility of the British feeder and breeder dropping out of the race altogether in supplying the consumers' trade, and devoting his attention to the breeding of pure bred stock. As he gradually drops out of the arena there will be a wider field open for the producer on this side of the water.

The Threshing Problem.

Some weeks ago we discussed this question and pointed out some of the failures of the system adopted by most farmers in getting the threshing done. In that discussion we took the ground that the present system of the farmer of depending upon his neighbors for help in threshing was a most expensive one, and that the farmer would make more money by hiring the help necessary when threshing. We also drew attention to the method in vogue in some districts of Quebec where the farmer has his own thresher, which he operates by means of a tread power or small steam power.

Though many farmers may not agree with all that we have said in this regard, we think that if they go into the question thoroughly they will find very much in favor of our contention that the present plan of changing works in order to get the threshing done is a very expensive one. Aside from the extra expense and loss of time incurred in paying back "threshing" work in the early autumn, when the corn and the fall plowing has to be done, there is the further danger of the threshing machine bringing dirty seed to the farm. Of course, this may be avoided by the persons in charge of the machine taking every precaution in cleaning out thoroughly every crevice and nook in the thresher before leaving one farm to go to another. But every one who knows anything at all about the work of threshing is well aware that this is seldom done, and that it is always the aim of the person controlling the machine to get to the next place and get started to work as soon as possible. There are many farmers in nearly every locality who would otherwise have had clean farms and pure seed had it not been for the fact that bad seed was brought on to the place by the threshing-machine coming from a dirty farm. The travelling threshing-machine is a very effective means of distributing wild oat seed through the country. These grains, because of their peculiar nature, adhere to the machine more than any other kind of seed, and therefore are easily carried from one farm to another.

A good way to avoid all these difficulties is for the farmer to have his own threshing machine, and to do his own threshing whenever he wishes. There will be no danger then of carrying bad seed from one farm to another, and the farmer will save money and precious time by not having to send help to assist his neighbor in threshing when that help is needed at home. This threshing question is well worth considering, and we would like to hear from some of our readers on the subject.

Pure Air in Country Homes.

Pure air is an essential to good health. Yet how often we find people completely ignoring this law. Farmers and people living in the country are frequently greater transgressors in this particular than the people living in the city. The latter, owing to their surroundings, often have not a plentiful supply of it, and consequently know how to appreciate the value of pure air more than the former. In the country where pure air is abundant, or should be abundant at all times, the farmer does not appear to put the value on it that he should.

The country home, perhaps, has less of pure air than one would expect from its surroundings. Very often the house is built in a way that prevents the air from being absolutely pure throughout. For instance, if a house is built without a cellar under every portion of it, it will be difficult to maintain the air pure all through the house. The portion of the house under which there is no cellar will be permeated by the close, stagnant air which gathers there. Where there is a cellar there can be a current of pure air all around the house, both in the living rooms and underneath them. The value of this cannot be overestimated when the health of the family is considered.

Very often the air about a country home is saturated by some cess pool near the house, caused by depositing the washings, etc., from the kitchen. Again, the hog pen or hog-yard may be in such proximity to the house as to prevent the air from being absolutely pure. When such is the case, it is largely because the hog-pen has been utterly neglected, and is nothing else than an abomination of filth and dirt. If the pen is kept clean and is a respectable distance from the house there should be no bad flavors from it. In many other ways the pure air necessary to the country home may be contaminated and made injurious to the health; and farmers should see that everything in and around the house is conducive to maintaining pure air in the home.

There is also a disposition in many country homes to exclude the sunlight. Nothing is so necessary in maintaining pure air in the home as the renovating, purifying rays of the sun. For this reason there should be no trees so close to the house that they will altogether exclude the sunlight. A great many disease-producing germs cannot thrive in the presence of direct sunlight, and consequently there should be as much of it as possible in every home.

Kansas Hard Winter Wheat.

Considerable interest is now being taken in the West in a new hard winter wheat grown in the State of Kansas. This variety is known as the Turkey wheat, and is said to have been introduced by the Mennonites who settled in Central Kansas in 1873 and 1874 from the southern or Black Sea district of Russia. For a long time this wheat was disparaged by millers and grain buyers, but its hardiness and almost unfailing yield caused it to be grown in ever-increasing areas in spite of the lower prices it commanded. About ten years after its introduction some of the progressive millers of the state discovered the superior flouring qualities of this wheat, and adapted their machinery so as to mill it properly. From that time they have carried on the manufacture of what is known as Kansas hard wheat flours, which are now recognized as superior to any other in the United States, and equal to the famous Hungarian flours.

The wheat is of a hard, flinty character, and millers were not able to do anything with it until they constructed apparatus for steaming, and thereby softening the grain before grinding. The price paid at first was from five to ten cents below that for the softer wheats of like grades. The farmers, however, because they were always sure of a big yield, and sometimes twice as much per acre as other varieties, persisted in sowing this wheat. They reasoned that, if they had to take ten cents a bushel less than for other varieties, it would pay them better to grow this Turkey wheat because of the much greater yield.

Of late years millers in the Northern States have been buying this wheat extensively to mix with the hard spring wheats from the Dakotas, in order to keep up the standard of the Minnesota spring wheat flours. The demand for it seems to be increasing. One large firm of grain merchants, operating in several of the large American cities, speaks of this wheat as follows: "We find the Turkey hard wheat, grown in Kansas, to be in excellent demand for export as well as domestic use, and think if more acres were devoted to its cultivation farmers would be better off, but they should get fresh seed occasionally from its native land." The best variety of this hard wheat is that known as the Crimean.

We give this somewhat detailed description of this hard wheat, as it may be interesting to wheat growers here. We are not aware that this variety is grown in any part of Canada. If it has been grown we would be pleased to hear from those who have had experience with it. It may be that our winters are too rigorous for its growth, and that it would not thrive under our climatic conditions. If no experiments have been made with it, it might be well if some of our experimental stations would take the matter up. There is a variety of spring wheat grown in some sections of Ontario known as the wild goose wheat, which seems to have some of the characteristics of this Kansas wheat.

Professor Lochhead.

We have pleasure this week in presenting our readers with a very good likeness of Wm. Lochhead, M.A., M.Sc., the newly appointed Professor of Biology and Geology at the Ontario Agricultural College, Guelph. He is the fourth son of Mr. Wm. Lochhead, a prominent farmer and dairyman of the Listowel district, and was born in the township of Elma, county of Perth, in 1864.

Professor Lochhead received his early educational training in S.S. No. 2, Elma, from which he passed into the Listowel High School at the early age of eleven years. For six years he attended the High School, and in 1881 matriculated into McGill University, winning a general proficiency Exhibition scholarship. At McGill he won scholarship after scholarship, proving himself proficient in mathematics as well as in science. In 1885 he graduated with the degree of B.A., securing first rank honors in the Natural Sciences. Sir Wm. Dawson took a very great interest in the young graduate, and much of Professor Lochhead's success as a teacher of science can be attributed to the careful training he received from the veteran Professor and Principal of McGill University.

Mr. Lochhead, like many young men with limited means and a strong desire to further the cause of science, decided to follow the teaching profession. After a course of training at the Kingston Training Institute he secured his first position in the Perth Collegiate Institute; but resigned it six months later to accept a Fellowship in Geology at Cornell University. He returned from Cornell to Perth and taught two years, after which he went to Galt, where he remained five years in charge of the Science Department of the Collegiate Institute.

The years 1894 and 1895 saw him again at Cornell, devoting himself to biology and geology, working under the guidance of such inspiring teachers as Professors Comstock, Tarr, Atkinson and Gage. He learned their methods of work, and the secrets of their great success as investigators and instructors. In 1895 Prof. Lochhead secured the degree of Master of Science (M.Sc.) from Cornell University. He taught in Napanee during the following year, but resigned in 1896 to accept the science mastership of the London Collegiate Institute.

Though eminently successful as a teacher, Prof. Lochhead has been interested in other matters outside of the profession. During the present year the Educational Department honored him with the appointment of examiner in Methods in Science for the Normal College at Hamilton. He has always taken the deepest interest in the pursuit of scientific knowledge whenever the opportunity occurred, and the Ontario Entomological Society has found in him a good worker and an enthusiastic collector of scientific specimens.

From the foregoing it will be seen that Professor Lochhead enters upon the responsible duties connected with the Department of Entomology and Biology with a practical and comprehensive training in the natural sciences which eminently fits him for discharging those duties in a way that must result in great benefit to the college and to agriculture generally.