

patch, taking an average yield in each case. It will be found that in some instances the income will amount to thousands of dollars per acre; if he disbelieves these facts or figures, then let him be guided by half the sums, and still he will find a profit of five to ten hundred per cent. above that of wheat growing. The figures thus obtained will be very hard to believe, but then facts and figures are proverbially the farmer's hobby, and we give him credit for his prejudice against theory. Now is the time for him to take these matters into consideration.

Make Drainage Observations.

Every farmer should make observations in each field as to drainage requirements several years before he lays a tile. Just as in the erection of buildings, he cannot lay his plans too soon. It usually requires but little observation to ascertain the direction of the water flow; but the location of the damp spots, the duration of the periods of stagnant water in the wet seasons, the depth of the water line, and many other observations, should be taken long before drainage operations begin. The more these suggestions are regarded, the greater the economy in the performance of the work and the greater the accuracy in calculating beforehand the profits of drainage.

The condition of the surface soil is not always a reliable guide; the character of subsoil must not be overlooked, and those spots which are sufficiently drained by nature should be marked out. First of all, let it be laid down as a rule that the soil to the depth to which the roots of the crop penetrate should be free from stagnant water,—that is, in such a condition in which the pores in the particles of soil are saturated with moisture, but the space between the particles filled with air. These are the best conditions for germination and growth, and spring is the best time to make observations.

In looking over your fields in spring, you will observe that some portions usually dry in patches, others in streaks; and if a crop covers the ground, the land which contains stagnant water for too long a period will produce a growth with a yellowish tinge, instead of a deep green color, as is the case with soils drained artificially or naturally. Clay soils, when the drainage is insufficient, will be observed to crack, more or less, according to the rapidity of the evaporation. In all fields saturated with excessive moisture, there is a tendency to the growth of such weeds as usually flourish in damp places, the development of which are checked by drainage. In cases of suspicion as to the efficiency of the natural drainage, holes should be sunk here and there to the depth of about four feet in order to ascertain the length of time in which water will stagnate therein; and if you are in doubt, when digging drains, how far they should be apart, a similar test may be adopted, making the holes at varied distances on each side of the drain, and observing, after rains, how long it will take for the water to find its way into the drain.

See that you do not sow grain that contains smut. For precautions and treatment read our correspondence columns.

Special Contributors.

A Chatty Letter from the States.

[FROM OUR CHICAGO CORRESPONDENT.]

Prices for farm products are low, and we hear a good deal of complaint about it amongst farmers. Those who have large stores of grain contend that the corn crop has been too large, and think they will pay more attention the coming year to stock growing. On the other hand, those who have put most of their efforts into making fat stock, are persuaded that the thing has been over done, and that they had better take up some other department of farm work this year. So it goes. Each one is too much dissatisfied with his own particular lot.

There is no question but what live stock and agricultural products are selling comparatively low. But a glance at every branch of manufacture will show that grain and live stock are not selling any lower, relatively, than other products. The fact of the matter is, we have been fairly on the verge of a disastrous panic, caused by the wild speculation and extravagance of the past few years. And right here it may be well to observe that the large production of grain and stock all over the country during the past year, which has been charged with being the cause of low prices for the same, has been the very means of averting a general crash. During this long winter if meat and bread were not abundant and rather cheap, the times would indeed be hard.

There is a large school of chronic complainers, who would have something to find fault with under any circumstances. There is at the present time certainly no very good cause for feeling dissatisfied with the profits of farm work. At any rate there is nothing which pays a larger legitimate profit.

It is coming to be a pretty generally recognized fact that the most profitable manner of marketing grain is through the medium of good beef, pork, and mutton. The farmers of the States are a great deal more dependent upon corn in fattening their animals than are the farmers of Canada and Great Britain. In fact, corn is the one article of food which the western feeders regard as all essential. This makes them too dependent upon one crop. When that fails, then the meat supply is liable to fail also.

Speaking of crops, the unusually cold weather that has prevailed throughout the corn belt of the States has had the effect of rapidly reducing the surplus (?) corn crop. It has required more corn to merely keep up the animal heat, to keep the animals from drifting in flesh, than would be required in summer time to make them fatten rapidly. Thus the severe winter is proving a leveller to the abundant corn crop, and the outcome will probably show, that while it is the largest the country has ever known, it is not larger than the demand. However it may seem, it is better for the greatest number to have good full crops. Even if the farmer gets no more money for a large crop than a small one, and has to work harder, he can usually, under such circumstances, get more of everything else for his money, besides being a benefactor to the multitudes in the consuming world who must buy their provisions in a hand-to-mouth way. Of course it is not well to have overproduction, but let us ever hope for good full crops, and reasonable prices.

They are more desirable than scant crops and extremely long prices. When we have large crops, the small and middle class people of all kinds are prosperous, but when there are small productions and exorbitant prices, only the wealthier classes can reap the rich harvests.

The severity of the winter has given rise to the opinion that the losses among range cattle will prove at the spring round ups to have been very heavy. Reports have been widely circulated in the east to this effect; but from the very best information at hand, it appears that there have as yet been no unusual losses, except in isolated spots, where the range was burned last fall either by fire or by the scorching sun's rays, as in some parts of the southwest. These reports are at hand, and take in the country from the Northwest Territory to the line of Mexico. The "tenderfeet" who make generalizations from isolated sections, and along the railroads, where many cattle are always killed in the winter time, are unusually plentiful this winter, and have been making so very exaggerated reports to the credulous eastern press.

Moreton Frewen, the Englishman who has large cattle interests in the west, is intent upon making his proposed Canadian cattle route to England a success. He is certainly working diligently, and seems to have no lack of faith in the project. By the way, Mr. Frewen is the one to whom is given the credit of originating the scheme, but the fact is that Mr. Fred. R. Lingham, the old time exporter, was the one who suggested the idea to Frewen.

The winter weather has been the severest since Chicago that has been known in a long time. During a period of thirty-six hours there was not a car of stock moved in or out of the Union Stock Yards, on account of the snow blockade and the intense cold. The like of this has never before happened since the founding of the yards, twenty years ago.

The advance in the rates for carrying dressed mutton had a tendency, for a time, to throw a stumbling-block in the way of that important branch of the trade, but it seems to have survived the shock of the unjust discrimination, and the dressed mutton trade is being successfully, and rather extensively carried forward. There is one argument in favor of paying particular attention to the mutton qualities of sheep. In this day of adulterations, wool has to suffer about as much as dairy products, but as yet there has been no way found by which mutton can be counterfeited.

Speaking of adulterations, reminds me that a London genius has invented an apparatus by which he can make artificial eggs. He does not claim that they would hatch if put under even the most faithful hens, but he declares that a chemical analysis will show that they contain all of the chemical properties of the natural egg. So the good hens will please take warning and be on their best behavior, for they may have a formidable competition in their business. Man is truly a schemer.

The cattle trade has lately been fairly satisfactory. Prices are about \$1 per cwt. lower than one year ago, but good beeves are not very cheap in comparison with everything else. The export demand is not very strong. Somehow the British markets do not seem to gather much strength. The supplies of stock going