

THE TEST OF THE NATIONAL WELFARE IS THE INTELLIGENCE AND PROSPERITY OF THE FARMER.

Every farmer in his annual experience discovers something of value. Write it and send it to the "Agricultural Editor of the Democrat, Bellefonte, Penn'a," that other farmers may have the benefit of it. Let communications be timely, and be sure that they are brief and well pointed.

The Farm Journal seems inclined to think that "a heavy coat of barnyard manure is excellent for a crop of wheat." The suggestion is not entirely new, and notwithstanding the adverse opinion of ex-Commissioner of Agriculture Watts, it might be worth while to try the experiment.

We notice that Dr. Calder, President of the State College, has been speaking to the Patrons in Warren and Erie counties, for the past week or ten days. The Doctor is a pleasant speaker, and capable of imparting much useful knowledge on agricultural and horticultural subjects, and his efforts in this direction can but result in good to the order, and the cause of agriculture generally.

We observe that the authorities of the Bald Eagle Valley Railroad are having the weeds which line the sides of their track in many places, mowed, and for this we tender them the thanks of the farming community. This will prevent the ripening of multitudes of seeds which spread themselves over the lands adjoining the track, and we trust the farmers themselves will not fail to follow the good example thus set them.

A note from the publishers of the Rural New Yorker informs us that the special Fair Edition to which we alluded week before last, will be the issue of September 6. This edition will be elegantly gotten up, with tinted covers, and an unusual number of excellent engravings, and will be worth seeing. Its special feature will be the announcement of the Rural's annual free seed distribution, and it will be sent free to anyone who will send his address to the Rural, 78 Duane street, New York.

REAPERS with self-binding attachments have abounded in the West for some years past, but these have all used string or wire for the band. In thrashing, and more particularly in grinding the grain, these materials are objectionable, and a demand is made for a machine which will bind the gavel with their own straw. We understand that this has recently been accomplished by an invention patented by Mr. Daniel Williamson, of Sunbury. If this proves to be entirely successful, and we do not see why it should not, it will be a decided accession to the self-binders, and Mr. Williamson may congratulate himself upon his prospects of a comfortable fortune.

Those who wish to have fine flowers during the winter, or good success with house-grown vegetable plants for early planting next spring, should see to it that they have a liberal supply of good soil on hand before winter sets in. There is no better way to secure this than to make a pile of sods from some rich, sandy spot, with a liberal mixture of manure from the cow-stable or pig-pen, in some convenient corner of the garden, and wet it frequently with the soap-suds and chamber-slops from the house. For flowers it would be well to add a portion of leaf-mould from the woods. Turn and mix a few times during the fall, and before winter sets in put away in old barrels or boxes for convenient use when wanted.

SECRETARY EDGE, of the State Board of Agriculture, to whom Governor Hoyt has deputed the power placed in him by the acts of 1866 and 1879 for the prevention of the spread of pluro-pneumonia among neat cattle, has taken hold of the work with the usual degree of energy. He has just issued a circular letter to owners of cattle, common carriers, veterinary surgeons and others, requesting them to report to him all cases of disease among cattle supposed to be contagious or infectious. All reports of supposed infection should be made direct to Mr. Edge, and all interested

are requested to accompany the report with a correct and full account of the location of the herd and the symptoms, in order that all unnecessary expense to the State may be avoided.

THE Patrons of Husbandry, at the meeting of the county Grange at Centre Hall, on the 5th inst., very emphatically sat down on Senator St. Clair's College investigating committee, denouncing its report as "untruthful and malicious in intent." The resolution "commending the College to the patronage of all who have sons to educate," founded on "a desire to benefit the agricultural community," will be interesting reading for our friends of the Practical Farmer, who have lately been trying to make themselves think that the College should be moved to Chester county, ostensibly that the students might have an opportunity to profit by the illustrious example of the Chester county farmers, but really because —?

WE ARE NOW in the very heart of the time when the preparation of the ground and sowing the seed for the next wheat crop is engrossing the attention of every farmer in Centre county. As this is one of, if not the, main crops of our county, and occupies the largest acreage of any, it is very evident that even a small decrease in the expense of cultivating it, per acre, or a small increase per acre in the yield, must be of immense benefit to us as a community of farmers.

It is the importance of this crop which must constitute our apology, if any be needed, for occupying so large a portion of our space this week with a melange of the many wise things which have been said regarding its culture. To reproduce all the wisdom which has been promulgated on the subject would occupy many times the space at our command, and we are obliged to content ourselves with an epitome of the experience of practical men, for the large proportion of which we acknowledge ourselves indebted to a long list of valued contemporaries.

THE Grasshopper Plague. In view of the destruction of crops in our county already caused by the invasion of the grasshopper, and of their probable increase in numbers and territory infested next year, we addressed a letter to the Commissioner of Agriculture, at Washington, asking for information on the subject. In reply we have received the following communication:

WASHINGTON, D. C., August 7, 1879. Hon. Wm. Le Due, Commissioner of Agriculture.—Sir: In answer to the communication of the CENTRE DEMOCRAT of Bellefonte, Pa., which you have referred to me I would state: In all probability the grasshoppers which are so abundant in Pennsylvania belong to the species known as *Calyptenus femurubrum*, which is very closely allied to the Rocky Mountain locust, (*C. spretus*). The methods of destruction which have been used against the latter species can be used against the former. The latest and most complete account of these may be found in the report of this Department for 1877.

Very Respectfully, J. HENRY COMSTOCK, Entomologist.

Soiling vs. Grazing. THE VIEWS HELD ON THIS SUBJECT BY A LEADING FARMER NEARLY SIXTY YEARS AGO.

The Farm Journal for August prints extracts from a little work on agriculture, printed by the veteran publisher, Major Freas, of the *Germanoven Telegraph*, in 1832. David Lloyd, a practical farmer of that day, was the author. From his essay on soiling we make the following extract. It is brief, but true and pointed:

When horses, cows and hogs are all kept in stables or pens, and their manure collected together and taken care of, the farmer will find himself in possession of one-third more manure at the end of August, than he could have had, if he had grazed his farm. Instead of manuring ten acres, he manures fifteen; and every year his farm produces more grain, hay, straw, and manure, of course.

This system of farming is so consistent with good sense and economy that it must be put in practice in this country at some future period; but it is not likely that anything less than necessity will induce people to put it into general practice. In years to come, when the population in this country becomes dense, and the plantations divided into small farms, the materials for fencing scarce, the land dear, and the necessity for improving it greater—farmers will necessarily be led to the method of soiling cattle.

A Creed for Farmers. The following creed was adopted, not long since, by a convention of Canada agriculturalists. As a creed it is undoubtedly correct, but we fear that, like some others, it fails of being strictly exemplified by many who profess to believe in it:

We believe in small farms and thorough cultivation. We believe the earth loves to eat as well as the owner, and ought, therefore, to be well manured.

We believe in going to the bottom of things, and, therefore, in deep plowing, and enough of it. All the better if it be in subsoil plow.

We believe in large crops which leave land better than they found it, making both the farm and farmer rich at once.

We believe that every farmer should own a good farm. We believe that the best fertilizer of any soil is a spirit of industry, enterprise and intelligence; without these, lime, gypsum and guano will be of little use.

We believe in good fences, good farm houses, good orchards, and good children enough to gather the fruit. We believe in a clean kitchen, a neat wife in it, a clean cupboard, a dairy and a clear conscience.

We believe that to ask a man's advice is not stooping, but of much benefit. We believe that to keep a place for everything, and everything in its place, saves many a step, and is pretty sure to lead to good tools and keeping them in order.

We believe that kindness to stock, like good shelter, is a saving to fodder. We believe that it is a good thing to keep an eye on experiments, and note all, good and bad.

We believe that it is a good rule to sell grain when it is ready.

Wheat and Its Culture. THE EXPERIENCE OF PRACTICAL AND SUCCESSFUL GROWERS, GATHERED FROM ALL SOURCES.

If the weather is dry when wheat is drilled in, a roller should be run over it after the drill. This will press the seed in and hold moisture.

I never have as much manure as I want for my wheat crop, and I believe I never lost a crop of wheat on land where I had top-dressed with manure.

The season approaches for putting out our wheat crop, at which time I top-dress for the two-fold purpose of getting a good wheat crop and a sure catch of grass to form a permanent sod. I do not attempt to top-dress unless I have fine manure.

There are few, if any, mills that will clean wheat entirely of cockle, chaff, etc., and it is still more difficult to separate; therefore, to insure clean wheat it is of paramount importance that a beginning is made in the right direction by sowing clean seed on clean soil.

Two points are gained by plowing early: one is to get the summer sun on it, so as to thoroughly "fine" the surface, the other is to be able to break it shallow so as not to have the ground loosened up too deep. If left later, the growth of weeds require deep breaking to turn them under.

Recently our farmers have learned that cultivating—a very indefinite term for keeping clear of weeds—will pay in the wheat field, and there is now nothing of greater promise to our grain growers than this one of stirring the soil between the rows of wheat and killing the weeds that retard its growth.

Last season was a very notable illustration of the evil effects of late plowing for wheat. While stubbles plowed early were in excellent condition for the seed at sowing time, those left late were in many cases as hard and dry as the middle of the road, and it was impossible to get them in fair condition.

Wheat requires a fine and mellow soil, it is best if compact below and roughish on the top. If there are any clods, these should be brought up from below by repeated harrowings, and broken by the roller or the disk harrow. If they cannot be broken up completely they are better on the top than below the surface. A roller will break many.

The mechanical effect of summer fallowing, especially in heavy lands, is quite noticeable, and its benefits are distributed over a series of crops. Where a summer fallow is considered too expensive, the plowing done in June before the weeds have matured their seed is frequently followed with cultivating the land by keeping the surface raw all the time, with good results.

Many farmers are testing the practice of cultivating wheat. We hear of frequent experiments in this direction, and these have generally turned out satisfactorily. Cultivating or hoeing is easily done by drilling the wheat in 16-inch rows, by stopping every alternate spout. It is

not difficult to construct a simple cultivator that will work the spaces between the drill.

Early-plowed ground has an opportunity to pack closely, and form a mellow yet firm seed bed, with hard bottom, which is just what the wheat plant wants. It should be remembered, however, that for wheat, after the first plowing, all after-culture should be near the surface. If weeds are allowed to grow so large that only the plow will turn them under, most of the benefit of early plowing of stubble is lost. I have often seen fallow plowed early in June, where the wheat was inferior to that grown after barley or oats. The reason was that the early plowing was left to grow up in weeds, until it had to be cross-plowed, while the stubble ground was cultivated only on the surface.

Among the improvements we would suggest for wheat farmers is the following: Preventing the effects of drought and winter-killing of autumn-sown wheat, and giving a strong impetus to the succeeding grass crop by top-dressing with short manure after the land is plowed for seeding, harrowing well, and then drilling in the grain. The manure would tend to keep the surface moist, and greatly assist in the germination and growth of the grass seed. This end would be still further assisted by a thin coat of straw spread over the surface after the seed is in. This straw coating has sometimes proved of great value in open winters, by protecting the young plants from cold winds and preventing winter-killing.

Charles Heller, of Elmira, N. Y., recently told the members of the Farmers' Club of that place that he believed the true way to raise wheat free from weeds is by summer fallow, as the ordinary plan of cropping makes no provision for clearing the land of weeds. Farmers raise oats or barley, and turn the stubble for wheat, with every kind of foul seeds that may have ripened to grow and ripen their seeds with the wheat, and when grass seed is sown it is crowded out. Mr. Heller did not presume to say that every seed will be destroyed by a summer fallow, but all that will interfere with the wheat crop may be thus killed. His practice on very weedy land is to plow once in June as early as possible, again in July, and yet again in August.

T. C. Maxwell & Brothers, who own over a thousand acres near Geneva, N. Y., and who have been long known as conducting one of the largest and most successful nurseries in the Union, cultivate one-half their land with farm crops for some years after removing the nursery trees, in order to restore it for another crop of trees. The large farm products which such land gives, show the high condition and deep tilth to which it is subjected while occupied as a nursery. A field of 80 acres of wheat, mostly Clawson, with a portion Canada Victor, was estimated to yield about thirty bushels per acre, which is much above the average in this unfavorable season through the country. The perfection and perfect cleanliness of their wheat crops enable them to dispose of the grain at advanced prices for seed. They practice harrowing wheat in the Spring with much success, and thus obtain an increase of several bushels per acre. On heavy soils, which have become hardened into a strong crust by Spring, it is necessary to load the harrow.

The better the preparation of the ground the better the crop. The high average yield of the English farms is no doubt largely due to the thorough preparation of the ground before seeding. Our climate is superior to that of England for wheat growing; yet a yield of 65 bushels per acre is not at all infrequent among good farmers there, while here 40 bushels per acre is an unusual yield. Two plowings, several harrowings and in many cases rolling or crushing; and the excellent preparation of the soil by a previous rot crop must have a much better effect upon the soil, than one plowing, very poorly done because of the hardness and dryness of our soil in midsummer, and very imperfect harrowing. It might be well for us to lay out more labor on our wheat crop, and so prepare the ground better, and raise our average from 13 to at least 20 bushels per acre. The difference in the amount of wheat at harvest would pay for a good deal of extra work in plowing, etc., and yet leave a profit; besides, the soil would not forget the generous treatment in one year nor two.

To raise good crops of anything, "Give good cultivation, put on plenty of manure, and then—a little more manure."

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