

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, Belleville, 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.

Profits of Beet Culture.

The following letter from Alex. Johnston, of Maine, was addressed to Prof. Gennert and by him embodied in his lecture before the New York State Agricultural Society. Mr. Johnston is somewhat enthusiastic, but we believe his enthusiasm to be in a good direction, and if his "great expectations" are but one-half realized the farmers of the country will have reason to be thankful:

"My plan work is much behind, but within a fortnight I will try to take off my memoranda on the sugar beet culture. The experience of my neighbors shows widely different results. All the way from nothing to 11, 24, 30 to 40 tons to the acre. The last, by Mr. Rich, N. Bailey. I am getting the exact data of and man to investigate very closely and thoroughly. He spares no labor nor manure, has excellent soil and is very prompt in sowing, weeding, thinning and cultivating between the rows. He feeds out his beets to his cattle, hogs and even hens. He thinks he can't sell at \$1 a ton; might sell for \$5, delivered at railroad station, three miles distant from his farm. He grows over the transportation cost only, and considers the crop worth more for his cattle. They all do. (I sold my own for 30 cents per bushel of 60 pounds.) They say if all the sugar, 12 per cent, and all the water, 80 per cent, is extracted from the root, the 8 per cent left can be of no great value, and so they very much prefer the entire root, without costly truckage, for their stock. At the same time they shall admit that there is more reliable cash value out of the beets at 20 tons to the acre than from potatoes, corn, grain, hay, or any other crop they can raise, and that if good friable land is chosen, well worked, and manured, promptly thinned and kept positively clean of weeds, the very day they can be detected, in the setting sunlight, greening the ground, there is no trouble or uncertainty about a good heavy crop every year, worth from \$100 to \$125 per acre. So they think, and so I know, after some years drill in raising beets. I was all alone in this town, in being raising for some years, beating everybody of course. But I beat it into them and now they begin to beat me—and I am heartily glad of it, and so are the cattle. Mr. Bailey says that the water in the beets at a reasonable temperature is better than the cold water in the brook or spring in winter, and the shivers that go with it, and that cattle don't drink near as much when fed regularly with roots as they do on dry hay and other such fodder. The crops of corn, hay, potatoes, and all the cereals are subject to great loss through many contingencies. Heavy winds, pouring rains, blight, rust, mildew, rot, bug, worm, and beetle, league together sometimes, and down goes the whole in quantity, quality and value, faster than one can breathe, far below the cost of production. The humble beet, firmly planted in the ground, laughs at all the wars of the elements, the bugs, beetles, weevils, and the thousand unnamed skipjacks, each requiring some separate sort of 'potheary stuff' to circumvent, and goes steadily on renewing its broken foliage, and quietly gathering up the sweets for future reliable usefulness. It cannot be long ere farmers will realize these facts, and plant one acre at least with a crop, which ordinary brains and prompt labor will always conduct to a satisfactory issue. It is a crop which utilizes thoroughly the handy fingers and perfect eyes of children, who can do great things in a beet bed for a small reward. This is the place for all, old or young, on the farm, who can do no hard work on most crops, but can very ably take care of this. It is a crop that yields more absolute money to the household than any other I know of—per acre—no outlay but the seed, perhaps two dollars. Two dollars out in the spring, one hundred back in the fall. Please show us the crop which yields so large a return for the land, manure and labor on so small a cash outlay. There must be 50,000 farms in the State of Maine. Almost every one can raise the sugar beet. Suppose 20,000 of them raise each one acre of beets—say 20 tons. They would grow then 400,000 tons, yielding \$2,000,000 to the farmers. This crop would make at least 400,000 tons of sugar, or \$80,000,000 worth, worth \$6,400,000. They can do it beyond all possible doubt, and if they do not within the next five years, then are their owners blind beyond redemption. There is no experiment about it; the raising of the beets and the making of the sugar are well established facts. I hope to live long enough to see an end to imported sugars in Maine, and the hard earned money of the Maine farmer stop at home where it belongs.

Leaks in the Stable Floor.

The liquid yieldings of animals are worth more—good authorities say one-sixth more—pound for pound, than the solid excrements, and are saved with greater care by the best European farmers and gardeners. All the leaks in the stable are not in the roof; those often in the floor are quite as objectionable, and are the cause of a great deal of waste.

Table with multiple columns showing agricultural data, likely related to crop yields or prices over time.

In fulfillment of our promise of two weeks ago, we present below a table of great usefulness to all who raise pigs, showing when sixteen weeks expire from any day in the year:

The Swine-Breeder's Table.

Whole Grain or Meal.

An investigating correspondent of the N. Y. Tribune wants to know why cattle cannot digest whole grain as well as finely ground meal. In its answer the Tribune gives good counsel, and we quote it entire:

"The reason why cattle do not digest grain as well as meal is because they do not grind it so well as the miller does. It is the habit of all ruminants to eat their food rapidly and with little grinding, and at their leisure to remasticate it. Cattle only raise for rechewing the coarse food which goes into the rumen, or, as it is commonly called, the paunch. After food gets into the last two divisions it never goes back again to the mouth. When cattle eat such food as oats, barley, corn and the like, they hurry it down without much chewing, and food of this character often fails of being all deposited in the rumen, and so much of it as falls into the last divisions without being masticated, is only imperfectly or not at all digested. It will be of no avail to feed with coarse food before feeding with grain whole. The fuller the paunch is, the less likely will the grain be to go into it. The better way is to have the grain ground very fine and mixed with wet fodder, either long or cut, when the meal will adhere to the wet food, and be carried into the rumen, and thus get the benefit of remastication and the action of all the divisions of the cow's complex stomach.

Soiling—A Coming Necessity.

From correspondence N. Y. Tribune. A new departure in the business of farming in our country, especially in the older portions of it, may be expected sooner or later, as like causes produce like effects. When land was cheap and labor dear, labor was economized and land set less store by; now the millions of our native population, and the augmenting crowds that are gathering from beyond the sea, admonish us to reverse this policy and use as much labor as possible in making the land as productive as it is susceptible of being made. My theme is soiling; or, in other words, cutting and putting their feed before cattle, sheep, etc. This implies a revolution; but the more we consider it in theory or practice the more it commends itself as a true principle. In its favor we may claim the saving of fence—which amounts to the heaviest tax the farmer has to pay—an increased belt of land to till; the prevention of noxious weeds and briars along fences; and insurance of cutting down or ploughing under all such nuisances before their seed maturity; making a very large increase of manure for litter and absorbing droppings from stock; and most of all perhaps, the prevention of loss by cattle tramping and fouling what they might eat. We are entirely safe in assuming that by the soiling system double the quantity of stock can be kept, and consequently a great increase of manure made to be applied to the hungry soil. Many reasons might be added to the above, but the object is to call attention to this vital question and induce farmers to think it out for themselves. All objections urged against its adoption are trifling compared to advantages; the principal one being additional labor, which is small when fairly considered—an additional hand, perhaps, say eight months of the year for a 150 acre farm.

HENS should not be allowed to disturb the sitters by laying in their nests. Broken eggs and a bad hatch will result. If the sitting hen cannot be isolated in any way, cover her with an empty coop, basket or box, being careful to have her come off every day for feed, water, exercise and dust bath.

Nothing will take the various social distempers which the city and artificial life breed, out of a man like farming, like direct and loving contact with the soil.

Naming the Chickens.

There were two little chickens hatched out by one hen. And the owner of both was our little boy Ben; so he set him to work, as soon as they came, To make them a house and find them a name. As for building a house, Benny knew very well That he could do that; but his big brother Phil Would not answer for chickens so pretty as these; Where boys are supposed to learn all sorts of knowledge. Phil was very good natured, and soon his small brother Had a nice cozy home for his chicks and their mother; And a happier boy in the country just then Could not have been found than our dear little Ben. But the name for his pets it was harder to find, At least such as suited exactly his mind; No mother of twins was ever more haunted With trouble to find just the one she wanted. There were plenty of names—no doubt about that—But a name that would do for a dog or a cat Would not answer for chickens so pretty as these; Or else our dear boy was not easy to please. These two tiny chickens looked just like each other; To name them so young would be only a bother. But with one in each hand, said queer little Ben: "I want this one a ROOSTER and THAT one a HEN." Benny knew them apart by a little brown spot On the head of the one that the other had not; They grew up like magic, each fat feathered chick, One at length was named Peggy and the other named Dick. Benny watched them so closely not a feather could grow In the dress of these chickens that he did not know; And he taught them so well they would march at command, Fly upon his shoulder, or eat from his hand. But a funny thing happened concerning their names. Rushing into the house one day, Benny exclaims: "Oh, mother! Oh, Phil! such a blunder there's been!" For PEGGY'S the ROOSTER and DICK is the HEN!

Agriculture the Corner-Stone of National Prosperity.

The world's history bears a strong testimony in favor of the position that permanent national prosperity is impossible except where agriculture is the chief form of national industry. The stability of the French nation, as a nation, during a hundred years of revolutions fomented in the cities, is due to the fact that the great body of the people are agriculturists, living on and off of their several small estates. The decadence of England's glory, both financial and social, if indeed that decadence is in the near future, as many wise men predict that it is, is due to the fact that instead of being, as for so many generations it was, a land of home-livers and bread-producers, it has become a nation of traders and artisans, crowded into towns and cities, where both the individual and the family are swallowed up in the swirling flood of operatives, with its superincumbent body of capitalists and operators. The manifest tendency of our people in the same direction, especially in the older States, is among the evil prognostics of the times, and the checking of that tendency is among the incidental good things that may be hoped for from the present experiences. The first and greatest want of this country is a large relative increase of its rural population—persons and families living upon their farms, and working them chiefly by their own hands, and deriving their chief sustenance from their own fields.

Scales and Measures—Not Guesses.

From the Practical Farmer. There is too much guess-work in farming and too little weighing and measuring. The "coming farmer" will be an experimenter, a man of interrogation points, and fully supplied with all the requisite aids to enable him to obtain accurate answers. He will be supplied with stock scales, and will weigh all his hogs, cattle, hay and grain, will keep accurate accounts with his fields, will have his experimental plots, and will be able to tell the value of the different kinds of feed for meat, milk or labor, what it costs him to grow a bushel of corn, oats or wheat, what plant food his soil requires, and what profit there is in the various branches of his business. When every farmer becomes an intelligent experimenter, agriculture will make most rapid advancement.

How to Grow a Good Crop of Corn.

By a Western Farmer in Rural New Yorker. An early start is the great point. One ear may be matured on a stalk with a late start, but to mature the secondary ears and give them their full growth, is impossible unless the crop makes a start from the first and keeps it up. If we use only a small quantity of manure in the hill to start the plant and the roots have then to grow several inches, or feet, away into the soil for food, time is lost and the crop is sacrificed. No after start can make up for this lost time. An excellent fertilizer to start the growth is a good handful of mixed poultry manure, wood ashes and plaster. This old-fashioned fertilizer has in it all that the modern formulas provide—nitrogen, phosphoric acid, potash and lime; and the useful effect upon the soil in a chemical way, of these materials, as well. But there must be something else. If stimulating fertilizers are used in the hill or drill, manure must be provided outside and near at hand to furnish food as soon as the former have been exhausted. So that there should be either a bountiful provision of manure in the hill or drill and a good dressing of soluble fertilizer in the soil outside of those, or vice versa. Either will answer the purpose required.

The next point is cultivation. This should be immediately after the seed is sown or at least before a weed is to be seen. By running the cultivator in the rows very soon after planting, the soil is loosened, the young sprouting weeds are killed outright before they have done any harm, and the manure and soil are more closely intermingled. Whatever may be the effect otherwise of cultivation of the soil, we know that it helps the crop. The best crops are raised by the use of the plow, occasionally, in the rows. It may be the root pruning as is claimed by Dr. Sturtevant; it may be the mellowing and aerating of the soil; it may be that the soil is kept moist about the roots by covering them more deeply; or it may be all of these; but it is certainly true that the big crops that have been grown have been cultivated with the plow more or less. Suckering may be dispensed with. Indeed with some varieties of corn, this habit of suckering adds to the yield, as the early suckers often bear ears. The stripping of the suckers stimulates the growth of stalk, and that is to be avoided when we are endeavoring to produce grain. Nothing remains to be done after this. When the attempt is made to grow a crop of unusual yield, a dressing of 150 lbs. per acre of dissolved bone or Peruvian guano of low grade in ammonia, may be cultivated in at the last working. This will help the formation of ears, and as it will cost from \$3 to \$4.50 per acre, 6 to 10 bushels of corn per acre extra will pay for it. The filling out of all the imperfect ears will far more than make up this quantity, and every corn grower knows how many imperfect ears there are in the best crop grown. From recent successes in growing large crops of corn, it is difficult to say what the full possibilities of this crop may be; 100 bushels per acre are now frequently grown and it is thought possible that this yield may be greatly surpassed. The truth is we are about now beginning to learn how to grow corn.

One Thing at a Time.

From the Farm Journal. Farming is a business as much as any other calling. To be followed successfully it requires thought, energy and the farmer's undivided attention. The margin of profits just now is small and competition is close and sharp. The way to make it pay is not to run off on to side issues, and so neglect the business in hand, but by higher cultivation, improved methods of tillage, more economical management, and greater industry to seek to swell the profits. The farmer who is poor-master, overseer of roads, agent for agricultural implements, storekeeper and bank director, must be a smart man if he is also a successful farmer. This promiscuous mixing of trades will do very well for gentlemen farmers who are not dependent for their bread and butter on farm profits. But for such as are so dependent it is a better policy to do one thing at a time and to do that thing well and with all one's mind and might.

Feed for Young Chickens.

From the Farm Journal. Stale bread moistened with sweet milk, but not wetted, is a very good feed for the first few days. When the chicks are a week old they may be fed on crushed wheat, or oats, or corn scalded with water or milk—milk is best. As soon as they are able to swallow grains of wheat or cracked corn they should have as much of it as they will eat, as late in the evening as they can be induced to eat. Give only a little at a time, but give it often. Never allow surplus feed to lie around and get sour. Give fresh water three or four times a day. Lose not a moment in planting peas, potatoes, beets, radishes, parsnips and cabbages, for early family use, after the ground gets dry enough. Cold snaps that are to come won't hurt them much.

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BALD EAGLE VALLEY RAILROAD.—Time-Table, December 31, 1877. Exp. Mail WESTWARD. EASTWARD. Exp. Mail. A. M. P. M. WESTWARD. EASTWARD. Exp. Mail. 8:05 6:10 Arrive at Tyrone Leave... 7:08 8:20 7:58 6:05 Leave East Tyrone Leave... 7:15 8:27 7:53 5:50 " Vail " " " 7:19 8:42 7:48 5:58 " Bald Eagle " " " 7:23 8:47 7:34 5:40 " Hannah " " " 7:27 8:52 7:26 5:31 " Port Matilda " " " 7:44 9:11 7:18 5:21 " Martha " " " 7:52 9:20 7:09 5:10 " Jullian " " " 8:01 9:29 6:58 4:58 " Unionville " " " 8:11 9:42 6:48 4:48 " Snow Shoe In " " " 8:21 9:51 6:43 4:45 " Milledburg " " " 8:24 9:56 6:33 4:35 " Belleville " " " 8:29 10:00 6:23 4:25 " Milesburg " " " 8:45 10:15 6:08 4:10 " Curtin " " " 8:55 10:25 5:56 4:02 " Mount Eagle " " " 9:05 10:35 5:46 3:55 " Howard " " " 9:08 10:49 5:39 3:51 " Eggleville " " " 9:18 10:52 5:46 3:47 " Beach Creek " " " 9:22 10:57 5:23 3:35 " Mill Hill " " " 9:37 11:14 5:29 3:30 " Flemington " " " 9:37 11:14 5:25 3:25 " Lock Haven " " " 9:42 11:18

PENNSYLVANIA RAILROAD.—(Philadelphia and Erie Division.)—On and after December 12, 1877. ERIE MAIL leaves Philadelphia... 11:55 p.m. " " Harrisburg... 8:25 a.m. " " Williamsport... 8:35 a.m. " " Lock Haven... 9:49 a.m. " " Renovo... 12:40 p.m. " " arrives at Erie... 7:30 p.m. NIAGARA EXPRESS leaves Philadelphia... 7:20 a.m. " " Harrisburg... 10:50 a.m. " " Williamsport... 12:40 p.m. " " arrives at Renovo... 8:40 p.m. Passengers by this train arrive in Belleville at 4:35 p.m. EASTWARD. PACIFIC EXPRESS leaves Lock Haven... 6:40 a.m. " " Harrisburg... 7:55 a.m. " " Philadelphia... 11:55 a.m. DAY EXPRESS leaves Renovo... 10:10 a.m. " " Lock Haven... 11:20 a.m. " " Williamsport... 12:40 p.m. " " arrives at Harrisburg... 4:10 p.m. " " Philadelphia... 7:20 p.m. ERIE MAIL leaves Belleville... 9:45 a.m. " " Lock Haven... 9:45 a.m. " " Williamsport... 11:05 p.m. " " arrives at Harrisburg... 2:45 a.m. " " Philadelphia... 7:00 a.m. FAST LINE leaves Williamsport... 12:35 a.m. " " arrives at Harrisburg... 3:58 a.m. " " Philadelphia... 7:35 a.m. Erie Mail West, Niagara Express West, Lock Haven Accommodation West, and Day Express East, make close connections at Northumberland with L. & E. R. trains for Wilkes-Barre and Scranton. Erie Mail West, Niagara Express West, and Day Express West, and Lock Haven Accommodation West, make close connection at Williamsport with N. C. R. trains north. Erie Mail West, Niagara Express West, and Day Express East, make close connection at Lock Haven with R. E. V. R. trains. Erie Mail East and West connect at O. C. & A. V. R. R., at Emporium with B. N. Y. & P. R. R., and at Duffield with A. V. R. R. Farrier cars will run between Philadelphia and Williamsport on Niagara Express West, Erie Express West, Philadelphia Express East and Day Express East, and Sunday Express East. Sleeping cars on all night trains. W. A. BALDWIN, Gen'l Superintendent.

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