[From the Illinois Farmer.]

CORN GROWING IN ILLINOIS.

With the present and prospective price of corn we are under the necessity of considering whether we can continue to grow this staple, to be shipped in its raw state, or to state the case more plain, can we afford to ship corn as at present, or must we be confined to the amount that we can put into beef and pork, or use otherwise on the farm. During the year 1860 there was received at Chicago alone fifteen and a half millions of bushels of corn, and since the first of November of the new crop nearly nine millions of bushels; and this is but a small part of what has gone into Missouri, Kansas, south by the way of Cairo and east by the various railroads, It will therefore be seen that an aggregate of ever twenty millions of bushels of the crop of 1860 has gone forward, producing to the farmer an average price of say twenty cents a bushel at the depot in the car, or an amount in round numbers of four millions of dollars. It is true this price, on the average, has not more than paid the cost of production; and now with the average price reduced one half we may well feel staggered at the prospect.

Most people charge this condition of things on the present hostile state of the country, but we judge this has less to do with it than many suppose. We think there is a more serious difficulty in the way, and one that will remain after the country is again at peace.—It is now evident that the South was preparing for this condition of things when they purchased so heavily last winter, and now the stock of corn is so abundant at Memphis and at New Orleans that sixteen cents would be all that could be paid for it here, to make it nett the present rates South. The railroad rates have it is true enhanced the price to the Atlantic seaboard towns, but otherwise the price of corn is not high at the South. Under present circumstances corn will not pay at less than twenty cents the net cost of its production; it is therefore evident that at that price it will cease to be a favorite crop for shipment. On the four million dollars received for corn, to the demise of "stumptail" there must have been a loss of at least a million of dollars, while at the present rates on that to go forward there must be a loss of over two millions more. The two sums will doubtless sink all the profit to the farmer on beef and pork made from the last corn crop. On the whole, the immense crop of corn for the year 1860, will no more than pay the expense of its production and harvesting, so far as the farmer is concerned. The railroads have been extensively benefitted as well as the commission men, while the corn merchant and banker have suffered loss Many of our county banks have gone under, loaded down with corn, or the notes of corn dealers. Some of this a loss direct between the price paid and that at which it was sold, and a part by withholding the funds by southern correspondents. Another evil that the corn trade begat was the purchase of stocks to extend the banking facilities, under the specious plea that more money was needed to move the crop. This, then, is the true position of the crop of 1860, to sum up—an immense crop barely paying its cost to the producer. Now if this is the case under such favorable circumstances, to which we should have added that the pork market was high, that the supplies at the South were exhausted, requiring a large extra amount to supply them, and which in a great part was obtained before the blockade, we may well enquire what will be the case with the crop of 1861, which though much less, yet promises to be more than an average one. It is certainly no object to grow corn at less than twenty-five cents delivered at the depot, or say forty cents in Chicago, unless by improvement in culture its cost can be reduced. This, we think, is capable of accomplishment, and that five cents may be safely counted upon. This will put it at thirty-five cents in Chicago, a price which we venture to say is the lowest that will permit of its profitable production, and one that will bring to market any large amount of this important staple. We do not mean to say by this that the culture of corn will not continue a profitable branch of farming, for there are other uses to which this crop is put, besides shipping in a bulk, and that so long as beef and pork are used, so long will corn continue the most profitable feed to made them, and in many parts of the country it will continue the staple feed for farm teams. To supply these demands will require an immense amount of corn—not so much as at present, it is true, yet an amount that will continue to give it a place among the great agricultural staples of the day.

SUBSTITUTES FOR CORN.

The extensive use of kerosene in place of alcohol, for lights, and the substitution of lager for whiskey, has cut off two great sources of demand for corn. An improvement in the wine crop has also lessened the demand across the water, where highwines went to make up the deficit in the product of the vine. In fact, the distillery was the great seething cauldron that absorbed the corn crop and maintained its high price, and unless some new demand shall arise, we see no good reason for a change, only in the reduction of the quantity grown. With the low freights and improved modes of culture the East cannot compete with the West in this great staple, and we must soon have the monopoly of its growth. but whether it will then be any great object is yet to be determined. The war is not the sole cause of the low price, for outside of that the causes before noticed had sapped the foundation upon which the demand rested. Cheap alcohol is busy adulterating the kerosene, but this will soon come to an end. The war will increase the demand for wheat and oats, and to that extent lessen that for corn. It is possible that the use of hot air in drying may make it more valuable for European shipments, but of this we have little hope. That it will continue the great staple for domestic use there can be no doubt, but as an article of commerce it must be confined to those points that will produce it the cheapest. The discovery of coal oil and the oil wells will lessen the demand for corn many millions of bushels annually, and throw out of use that dangerous compound of alcohol and turpentine, which in spite of its character had become, on account of its valuable illuminating quality, almost a necessity. Lager beer, instead of whiskey, has become the national drink, and of course to that extent decreases the commercial demand for corn.—The making of domestic wines and the disuse of wines fabricated out of whiskey is another drawback to its commercial value. The wonderful extension of the spring wheat crop by supplying cheap flour to the masses, has made another permanent inroad into the corn crop. The culture of winter wheat is also being better understood, and its production is not only increasing, but being cheapened will displace so much corn for food. The sowing of rye for fall pasture and using the crop for "hogging down"—that is, allowing the hogs to do the harvesting—is a new item in the pork line that is rapidly trenching on the domain of corn. Rye, after becoming ripe, will fall to the ground and remain sound for months without sprouting in the ear, thus making it a valuable feed, and as hogs fatten much faster in warm than in cool weather, the rye by giving an early feed has the advantage; it is true that old corn will do the same, but this must be fed daily, while the rye is at all times ready and at the same time makes a good shade for the lazy porkers.

It will thus be seen that though corn, like cotton, may claim to be king, yet it is being shorn of much of its power and prestige.—Like all course staples, there will be times when from the failure of other crops it will command a high price, but in its permanent position on 'change it will hereafter occupy a less important place. We have no great regrets on this score, for other products will supply its place, probably as profitably as corn. The real difficulty lies in making the change, for farmers are generally slow in these things, and have a fondness for the old and long tried beaten paths.

TWO-HORSE CULTIVATORS.

The first object is to cheapen the culture.—So long as the margin of profit was large, and as corn held the monopoly, it mattered less how, or with what it was cultivated; but now when the margin is small, if not doubtful, it becomes us to use every effort to cheapen its culture, for five cents saved in culture is five cents profit or so much less of loss.

It has been sufficiently demonstrated that with a properly constructed two-horse cultivator, the quality of the work is superior to that done with a single horse, while singly, and at the same time save the labor of one man—that is, two horses and one man can work eighty acres as easily as two men and two horses. We will suppose the corn is worked four times, at four acres a day with a single horse, and we have a saving of forty days, which for wages and board, including bad weather, is not less than forty dollars.—This, if the crop averages forty bushels to the acre, is about one and a fourth cents per bushel on the crop of eighty acres, or half a dollar to the acre; but in addition to this, we have no doubt that the crop will average five or ten bushels more; nor does the difference stop here, for with this kind of cultivator the crop is drilled in, which will make a saving first on the cost of the machine for drilling over the planter, and second, in marking off and in the saving of the extra hand work to check off the hills. Another very important point is that by drilling the planting can follow the plowing, instead of waiting until a whole field is plowed, harrowed and marked off. Here, then, is a continuous advantage from the beginning, and which cannot at this time be overlooked, if we have any regard to the profits of corn growing. Under this process we think four workings are better than five under the old. We cannot put this difference at less than five cents on the bushel, which at the present selling price is no small item, if corn will barely pay at twenty-five cents under the two-horse system—that is. we would rather grow corn for twenty cents under this new plan, than twenty-five under the old. When corn was worth fifty cents, the profit was so large that it could be worked with almost any implement and yet prove satisfactory, but now when it is selling below cost, one of three things must occur—a rise in price; the cheapening of its culture, or an abandonment of the crop for commercial purposes. Of the two-horse cultivators we have already a large variety of patterns, all of them more or less valuable; some of them with seats for riding, some to be guided with a lever, and others in the ordinary way of cultivators. None that we have seen come up to what they should or will be.

We have one, with rollers to crush the lumps, which we look upon as a valuable feature, but the cost of it and the imperfect manner of its construction will not allow of its general use. With this cultivator we can work any drilled crop, however small, when the land is in good order, doing better and more work with two horses than by any other mode, and still we would not recommend it for the reason given—too complicated, too expensive, and too frail Its first cost was fifty dollars, full twice what it ought be. The rollers, the cultivator, and the shoe to protect the young plant from being covered with clods and earth are all properly conceived; but the arrangements of the parts are all wrong, lacking cheapness, durability, and ease of handling. The skavering knives that formed a part of the machine, we have laid aside as useless; the guiding apparatus, which was cumbersome and liable to get out of order, has been abandoned as unnecessary, and we would strip the thing of all its expensive gearing, place the cultivators on a solid frame, to run on cast rollers like the section of a common field-roller, say not over two feet in diameter. No farmer who cultivates eighty acres should be without a good cast roller; and as these are made in sections of a foot each, two of these sections would make admirable pulverizers to precede the cultivators, and thus lessen the cost of the implement. What we want is cheap well constructed implements.—They must, in the first place, be simple in their arrangement, not liable to get out of order, and be made strong and durable. A large portion of our implements are worthless from these defects. It is time that we had a change; in fact as the price of corn compels it, in regard to cultivators, inventors and makers will thank us for pointing out the necessity of a change in this respect. So far as we can learn, the number of any particular form of the two-horse cultivators made, has been limited, no one being willing to risk a large amount on the experiment until their practicability was more thoroughly tested.—This is now settled in their favor, and we will now see who will get up the best and cheapest one. One of our neighbors had an old wheat cultivator made for the purpose of putting in wheat. The wheels were some twenty inches high, with an apparatus for lowering and raising the teeth. It was made for two horses, and contained seven teeth. He took out the middle tooth, fastened a common chair to the frame, on which he rides, and drove it into the corn field at the rate of eight acres a day, doing most excellent work. As a machine for cultivating wheat, it was of little value, but for its new application it will rank among the first, for its adaptability and strength.

Plaster, Ashes, and Experiments.

A late number of the *Boston Cultivator* furnishes the following statements and suggestions; and such experiment would be doubtless of much value if carried out, remembering that no single experiment is sufficient to form a conclusion, but they must be several times repeated, under all varying circumstances:

Mr. E. L. Metcalf, of Franklin, informs us that a mixture of plaster and unleached hardwood ashes, in about equal parts, made a little moist, and kept in a heap protected from rain, for four to six weeks, and then applied to crops, will generally produce a highly beneficial effect, even where plaster alone would produce no effect at all, and in all cases the benefit is greatly increased over that of pure plaster. Applications of this compound and of plaster and ashes by themselves, and of guano, superphosphate of lime, &c., might be made by sowing breadths across fields, leaving spaces between without anything. The result would afford an indication of the comparative value of the different substances, and might show whether any of them could be profitably used for this purpose.

Reaping on a Wager of $100.

Garret Smith, of the town of Burnett, a few days since proposed to reap twenty acres of wheat on his farm, in the town of Burnett, with a reaper much in use nowadays, and one span of horses, between sun and sun, on a wager of one hundred dollars. This offer was accepted by H. W. Hawley, and the stakes put up. Mr. Smith was to select his own team, but the span were not to exceed 2,100 lbs. in weight. At 35 minutes past four the job was done, and well done, not a handful of wheat being left standing on the whole twenty acres. The cutting time was 10 hours and 21 minutes, A rest of an hour and fifteen minutes was taken at noon. It will thus be seen that this single team and reaper averaged about two acres an hour, for ten hours, having finished the twenty acres while the sun was yet two hours high. It was estimated that the piece would average from 18 to 20 bushels per acre.—[Beaver Dam Argus.

Seeds.—Those who raise their own garden seeds, can improve the quality of carrot and parsnip seed by cutting off all the small clusters of blossoms, and beets by pinching off the ends of the shoot, as soon as sufficient length is grown, or when all the seed is formed which ripens before frost; all the strength of the plant will then go to develop the remaining seed, and they will be larger and better filled.

Preparation of Seed Wheat.

I am one of those who believe in good seed, no matter whether it be for the garden or field, or whether wheat, rye, corn, or buckwheat. I am particular always to get good, clean, dry seed, that is, seed which has been well cured before housing, and well cared for afterwards. Next, I always give a preference to new wheat, and an additional preference to that which is not threshed until just ready for use. Again, my seed wheat is always steeped in a liquid before sowing. I adopted this plan from a recommendation given in an agricultural paper many years ago. All wheat, or almost all, is infested with spores of fungi, which, though not visible to the naked eye, are nevertheless "*har*," and in sufficient quantities, generally, to do damage.

My plan is, to take from a pound and a half to two pounds of blue vitrol, (sulphate of copper) Dissolve this in from two to three gallons of hot water, and let it cool before using. Spread the wheat on the barn floor, and with a common watering can sprinkle the solution over it, at the rate of about three pints to the bushel of seed. Then, take a shovel, and turn the wheat over and over, until it is uniformly dampened. Be particular in doing this. It will be ready for sowing next morning, if done in the afternoon. Bats will not eat wheat thus prepared, and fungi will be completely destroyed by it.—[Farmer and Gardener.

A Profitable Apple Crop.

There is an apple orchard on Benson's ranch, in San Joaquin county, containing near 500 bearing trees, 6 years old and all loaded to their utmost capacity with splendid fruit. We observed trees containing the finest specimens of rambo red-streak, genetting and gloria mundi fruit we ever saw in any orchard. These apples sell readily on the farm at 8 cents per pound or $3 25 per bushel. A number of the trees are bearing as much as 6 to 8 bushels each, and the entire apple product of the orchard will be worth a small competency. When the home market is satisfied, the proprietors will take what is left to the mountain towns and to Washoe, whither there is a remunerative market. All these trees have been cultivated this year without any irrigation, in a sandy soil, the surface of which is about 10 feet above the water level of the river.—[Stockton Independent.

CLIPPINGS.

—Another German regiment from Philadelphia has been accepted, commanded by Col. Schimmelpfanning. That name alone is enough to inspire the foe with terror, says an exchange.

—From a record of captures by rebel privateers, carefully kept, the Journal of *Commerce* finds that sixty-nine vessels, of all descriptions, have been taken, the value of which cannot fall short of $1,500,000. In the same time the cruisers employed by the United States have taken less than fifty prizes.

—The Richmond papers say that Mrs. Henningsen had arrived in that city. She was closely searched by the Unionists, but she "managed to get through with over thirty pounds of Quinine, five revolvers, and a galvanic battery."

—All the sovereigns of Europe have received invitations to be present at the coming coronation of the King and Queen of Prussia.

—It is reported that during the Emperor Napoleon's late stay at Vichy the grenadiers stationed there had a ball, at which he was present and danced with the wife of the Colonel of the regiment, several English ladies; ladies from Vichy, and Countesses of the empire participating in the quadrille.

It is said that one of the rebel prisoners confined at Camp Chase, Ohio, had a "letter of marque" from Governor Wise, in which he was empowered to 'pick off" Union scouts at five dollars a head.

—A horse at Dover, New Hampshire was lately stung to death by wasps. He trod upon their nest, and wasn't able to tell them it was an accident.

—While Joe, a servant of Erskine Watkins, a Mississippian officer, was cooking a chicken in the kitchen near the hospital, during the Bull Run battle, a ball passed near him and struck his skillet. In his report he said: "Bress God, massa, I never saw de chicken after dat!"

—A Pennsylvania soldier went hen-roost robbing near Lancaster, Pa., was surprised by a farmer and shot dead. He clasped a fowl and drew his last breath at one and the same time.

—Cincinnati papers say the damage by the late flood in that city will amount to $200,000. So fierce and sudden was the rush of water in some of the streets, that the horse cars were overflowed and passengers sat with their feet on the seats.

—Procuring a coffin, Henry Rock, of Proviso, Ill., laid himself in it, and attempted in that position to shoot himself with a pistol, but having succeeded in inflicting only a slight wound, he got out, constructed a noose, which he fastened to a projection over his head, and then throwing himself forward into the coffin, dislocated his neck and so died.