

FROM A CONVERT TO ENSILAGE

A Barn Silo, Cut Stalks and Good Feed.

Having seen some inquiries in relation to ensilage in your columns, I will state some points which seem to me to be of value, and which have come to me in my three years' experience with the silo. I was not at all favorably impressed with the ensilage idea when it was first introduced into this country; like many others, I was disgusted by the extravagant claims for the new system. At length I became a unwilling convert by seeing how well live stock thrived which was fed upon corn ensilage; by the great amount of feed which could be obtained from an acre under proper care and cultivation, the little cost at which cattle could be kept and fed, and by the increased numbers which could be well kept upon our old farms, and hence the great increase in manure which could not fail to increase the productive capacity and profit of our farms. It took me some time to locate my silo, but at length I decided to place it in my stock-barn, and now it is so near the right thing in the right place that it is a wonder we had any doubt or hesitation as to the location. The silo is constructed of wood, one thickness of matched boards nailed on 4 by 6 timbers, which are placed 16 inches apart from centre to centre. One thickness of boards has been found to answer just as well as two, and will be found to last longer, as it will dry much quicker when the contents are removed. The dimensions of my silo are 23 by 27 feet inside and 20 feet deep, 8 feet of which are below the floor, and it is considered to have a capacity of 300 tons. At first it was divided into three compartments; we filled it in this way for two seasons, but the past year we removed the partitions, making only one silo, which we like much better. It is easier to fill, and can be tramped much more effectively, as there is less wall to pack against, and the air can be excluded much better. We could also make use of animals to do the tramping, which was found to be a great advantage. We used horses and found it a great improvement and less expense than to do it with men, by rigging an inclined platform and keeping one corner a little lower, we could use the horses until the silo was nearly full. The contents settled but very little after it was weighed. I believe treading and heavy weighting to be the secret of good ensilage. In feeding we uncover one-third of the surface and cut down with a common hay knife; the edges exposed are not much damaged, as it is so solid, and the loss is much less than the inconvenience of the partitions. We have never had as good ensilage before.

Experience has taught me that one must know when, where, how, and what to plant, in order to obtain the most satisfactory results. Any land suitable for corn will produce good crops of ensilage corn, and the same careful preparation and manuring will be necessary in each case to produce the best results. We have used six cords of yard manure, put on with a Kemp spreader, harrowed in, and 300 lbs. of fertilizer in drills, put in with the seed at time of planting. Although many believe that corn put in at any time before the 20th of June will answer, it is well to put it in earlier, or some as soon as field corn is planted, so that the crop may be out of the way of early frost, and the work of cutting and putting in the silo may be done earlier and not interfere with the latter fall work. The corn should not be planted too thick, as the sunlight is of great benefit in making good, rich feed; grown thick, so that it is shaded, it is not nearly as valuable for ensilage purposes. We used fourteen quarts to the acre the past season (put in with a corn planter with fertilizer attachment), and had better results than those who used more seed. The season was very wet, and those who seeded heavily found the corn did not stand up, falling down early, and much of it became damaged and unfit for use, beside being much more work to cut and gather up.

At first we use Blunt's Prolific, which made a very heavy growth. Last year we used the Leaming corn, which is earlier and develops ears, and though not making quite as heavy growth, is considered by many much more desirable for ensilage purpose. The heaviest growth we made last year was 32 tons per cent, actual weight, and the amount of ears developed made it the heaviest crop of corn in this vicinity. This was cut at the time it was glazed, and put in with the cut stalks. Some who have made careful experiments have found that

corn cut and put in the silo at this stage, is as valuable as when ripened and made into meal by the old process; that the entire goodness is thus preserved, both of corn and fodder, and that the ensilage process is attended with much less labor and expense than the old methods.

We cut our ensilage one-half inch long, and believe the fine-cut to be eaten better than that cut at greater length, the large butts and stalks being thus as readily eaten as the leaves and tops. Cut fine there is little opportunity for animals to pick it over and reject any portion. There are those who advocate and practice putting the corn in whole, and claim it to be an advantage. In the absence of cutting apparatus, corn put in this way may be better than no ensilage, but it is subject to many objections. Those who have tried both ways claim that it is more work to put in whole than to cut; and in removing from the silo it is much harder to deal with than when cut; the large stalks are rejected by stock in the same manner that they are when cured in the old way, and that the advantage is all in favor of cutting. Those who have small silos often change work, and a number who do not feel able to own cutting apparatus can in this way obtain all the benefits of ensilage at small cost. The silo has made but slow progress thus far, but is steadily gaining in favor. All with whom I am personally acquainted, who have tried it, are enthusiastic in its favor.—W. Brown, Hampton Falls, N. H., in Country Gentleman.

TO THE FARMERS.

The more we see and learn of the Farmers' Alliance the more we are inclined to speak of its merits and recommend it as the best thing ever offered our farmers. It is certainly the best and most thoroughly organized body that it has ever been our lot to become acquainted with. It shows that wisdom and true brain work are its founders. Some of our merchants however seem to think because they are intelligent that it is a movement directed entirely against their interest. In this they are entirely mistaken. It seeks not to array one class against another, not to benefit one class by pulling down another but merely to protect and benefit the farmer and to lessen his burdens in life. It seeks to adopt a cash system of trade that will do away with the mortgage system. Viewing these features of the Alliance in a casual way the merchants may suppose that it will prove to his detriment but while it prevents his making such enormous profits on his goods it will ultimately prove a blessing even to him for it will give him more trade and much easier business with less vexation and annoyance than most merchants now experience. Where the Alliance is more thoroughly organized than in our own State cotton yards are being established where the farmer can deposit his product and on his certificate of deposit it is so arranged with the bank that he is allowed to draw three fourths of its value in cash. This arrangement enables him to hold his cotton and other products and not be obliged to sell at a sacrifice as many were compelled to do last fall. By concert of action then the price can be raised to something like the cost of production. The merchant calculates the cost of his wares before he sells, why not the farmer do the same? Just as long as the manufacturer is allowed to price the farmer's goods the same as his own, just so long will the farmer suffer at the hands of the manufacturer, because the farmer is consumer as well as purchaser.

Already have offers been made from fertilizing companies to furnish fertilizer to the Alliance at reduced rates and the movers confidently expect a still greater reduction. Boards of trade are being established in every county organized, who are negotiating with manufacturers and wholesale houses for supplies, necessary for the agriculturalist. We do not see therefore why the farmers shall not be greatly benefited by this move in the right direction. It is a stubborn and lamentable fact that our farmers as a class are becoming poorer and poorer every year and it seemed that there was no chance only for many of them to become veritable serfs as is the case with the laboring class of Ireland today; but we thank God there yet is hope, there is yet a "balm in Gilead." We urge the farmers then every where to unite themselves in this grand scheme for their redemption. If you have no Alliances near you where you can join then call on one of our organizers and start one at once. The

cost is a mere pittance compared with what is saved. It is said by some who don't know that one or two men at head quarters are getting rich off the proceeds of the Alliance. While all Alliance men know that this is not true yet were it true, is it not better that we make one or two rich and benefit ourselves than to make millionaires out of many and thereby impoverish ourselves and reduce the families of our farmers all over the country to want and penury? Again we urge every farmer to unite with some Alliance and assist in casting off the burden that is fast becoming to heavy to bear.—Sanford Express.

STARTLING FIGURES.

The mortgage system is simply ruinous. Wherever practiced it is a burden and a curse. The Star has been through the years pointing out its dangers and it has urged upon our North Carolina farmers to abandon the system at whatever sacrifice. It simply means slavery. It changes serfdom from the blacks to the whites. No farmer can possibly thrive upon from 15 to 30 per cent. extra for supplies above cash rates. The Louisville Courier-Journal, in a recent discussion of how the Plutocrats help the farmers, gives some figures that confirm what the Star presented not long since. It furnishes some startling figures which we commend to all. It says:

"In ten Western States the farm mortgages are estimated to amount to \$3,400,000, or twice as much as the National debt. This is 27 per cent. of the assessed value of all the farms of those States. At 8 per cent. the interest would be \$292,000,000 a year. This interest is a hundred and fifty millions more than we get for all the wheat we export, and is nearly twice the average we get for all our cotton exports.

"It takes now 40 per cent. more wheat and other farm produce, except live stock, to pay the amount of that interest than it did ten or fifteen years ago. Assuming the means of payment to be only farm produce, as it certainly is, that annual interest, \$272,000,000, stands now for an amount of wheat and other stuff which ten or fifteen years ago would have sold for \$380,000,000. The difference of \$108,000,000 is simply a theft from the farmers. But the principal of the debt covered by mortgage, \$3,400,000,000, now takes as much farm produce, except live stock, to pay as ten or fifteen years ago would have sold for \$4,760,000."—Wilmington Star.

ECONOMIC PRINCIPLES OF FARMING.

Every farmer should know this, that thorough plowing preparatory to planting, then careful and judicious planting, and good culture, and abundant manuring, attended with favorable seasons, is very apt to assure good crops; that is all that can be said as regards making abundant crops; the rest depends on proper and judicious management in attending to details; no business can succeed without economic management, and the first principle to observe is that expenditure must not exceed income; it is not what a man makes, but what he saves that adds to his prosperity; stop the leaks and waste will be prevented; recollect the old adage, "Wanton waste makes woe for all." In the management of a farm, as well as with all other pursuits, attending to details has done more to assure success than anything else, after having everything regulated to run by a proper system, for without system everything is left pretty much to chance. There should be a place for everything, and everything should be in its place, and if this was observed how much time would be saved and how much loss of many things would be prevented. I have seen instances, and it has often happened with myself, where tools, implements and other things have been mislaid and hours of work have been lost in hunting them up, and sometimes never found.—Atlanta, Ga. Southern Cultivator.

A correspondent of the Rural World says: "The secret of the superiority of California horses is in the food." Barley was ages ago discovered to be a great natural horse food. Sonini, of the Emperor Napoleon's staff during the Egyptian expedition, confirmed it. It would be but little trouble or expense for some of our breeders to try the food suggested in an experimental way, and perhaps through its agency be enabled to produce a 2-minute trotter.

APPLYING MANURES.

As manures made on the farm are of very unequal values, they should be thoroughly mixed together before applying to the land or to the crops; that is, in other words, the manures should be composted together. Some manures are very rich in one element and some in others, and, for the most part, the richer the elements contained the less bulky they are, as, for instance, hen manure; and, on the contrary, the more bulky the less value in fertility. And it is difficult to apply the less bulky, rich manures economically to the land; hence it is advisable to compost them with the more bulky, such as barnyard manures. The rich elements will soon leaven the entire heap, and thus the richer manure can be evenly distributed over a larger surface than it could be if in any smaller bulk; otherwise, too, the poorest manure might be cast upon the poorest land, where the richest is needed.

As to applying manure to the hill, this method, we think agreeable to our own experience, is not safe as a general rule. It is better that the manure used on all crops should be thoroughly mixed with the soil rather than in the hill, especially if in quantity or in lumps, for it soon dries out when the rains stop, then it injures rather than benefits the crop. And, besides, some manures are too strong for young plants. They do not need so much nourishment at the start; but when they have attained considerable size, and have sent out rootlets all through the soil, then plant-food is demanded in abundance, and if it has been thoroughly incorporated with the soil it will be found and taken up.—Atlanta, Ga., Southern Cultivator.

PROFIT IN WINTER PEARS.

Winter pears are not so generally grown as they should be. Few farmers attempt their culture, because they do not understand their real excellence for home use, or are unwilling to undertake the extra labor required in packing, handling and marketing. Fall pears are marketed by wholesale at nearly the time when ripe; but a pear that matures two or three months later, and needs warmth and folding in some soft material in a dark place, to reach its best development, strikes the average farmer as involving altogether too great labor for him to undertake. But let him try to buy a few of these finely-colored and deliciously flavored fruits, and he will be satisfied that this pottering work is of the kind that pays. Winter pears ought not to be as expensive as they are. They bear quite as freely and surely as varieties that ripen earlier, and they have the great advantage over Summer and early Fall fruits that it is possible to delay their ripening, at least of a part, and thus extend the season for their use. They do not need greater care in handling than Winter apples ought to have, and will surely pay for what extra attention they receive.

FERTILIZING WITH CLOVER.

A correspondent requests information in regard to how best to fertilize with clover, and whether it should grow to a several height, be used as pasture, or cut as hay before plowing under. There are certain modes of fertilizing with clover. One is simply to use a clover crop in rotation, the simple occupancy of the land by the clover being beneficial, as the sod must always be turned under before another crop can be grown. To plow under a crop of growing clover that can be cut as hay will be objected to by farmers, as they will not willingly make such a direct sacrifice. Nor are they required to do so. The object in advocating the advantages of growing a crop of clover is to induce a large number of farmers to grow more of it. If sown on wheat land, and a good stand be secured, the clover will occupy the land after the wheat shall be off, and may be used for any purposes desired, either as pasturage or to hay, but the fertilizing of the land is done by the decay of the roots after the sod shall have been plowed under. It is a property of clover to secure ammonia mostly from the air, and not from the soil. The proof of this fact is shown by the large amount of nitrogen in clover, yet it thrives best on a soil rich in potash and lime. Though containing nitrogen in great proportion, yet it is not benefited by applications of fertilizers containing nitrogen, thus demonstrating that it derives the greater proportion of its nitrogen from the atmosphere, which is stored largely in the roots by the

plant, while the mineral matter is derived from the soil. If the farmer, therefore, will grow a crop of clover on the same land every four years he will fertilize the land with the nitrogen taken from the atmosphere, thus enriching his soil with that which will cost him but very little, and he may cut his crop and dispose of it, provided he shall plow under the sod and thus utilize the roots. If an application of lime and wood ashes be made on the land annually the farmer need not be compelled to purchase nitrogenous fertilizers at all, and these advantages he will secure by simply growing the crop on the land. If, however, he should prefer to seed down to clover in the spring, cut the first growth the next season, and then plow under the second growth when the clover shall be from six inches to one foot high, he will add additional green manurial matter to the soil; but without plowing under anything but the sod, after all the crop shall have been secured the land will still be benefited the mineral elements (which are not costly) be supplied, such as lime and potash, but more if ground bone be also added. It is the rotation of crops that prevents loss of fertility.

GRUBBING OUT TREES.

Wherever time is an object in clearing land no stumps should be allowed. A stump is unmanageable, and if green, is quite as apt as not, if cut in winter, to send up suckers, which will keep the roots alive and prolong the nuisance indefinitely. But a tree may be dug around with comparatively little labor, and its top used as a lever to turn its roots out of the ground. As the tree bends, the roots that adhere in the sod may be cut with an old axe, that need not be very sharp for that purpose. When it lies on the ground hitch a team to its top branches, and twist the body around so as to loosen more roots. In this way a tree of moderate size may be cheaply grubbed out. When the hole made by excavating the root is filled, the whole may be plowed and seeded.—The American Cultivator.

As soon as the ground will work fairly well in the spring, break it deep and work it thoroughly. If the garden be thrown up in ridges the previous fall, it can be worked much earlier. Many gardeners practice this method, especially for their earlier vegetables. Mark the ground off in rows with a shovel plow or a hoe; run them such distance apart as the nature of the vegetables to be planted require, then fill in of the compost as much as is required, rake over it a little of the soil, then plant. Always drop in a few more seed than is desired to let grow, for if early vegetables, especially, one wants no delay. It is the practice with many gardeners to sprinkle ashes over the rows, and some saturate the soil with a solution of copperas as a precaution against insects. The working and preparation of the ground is much the same for other and later products as that for the earlier. Thorough breaking and pulverizing of the soil, a plentiful supply of well composted manure, and careful after-cultivation is requisite, and with these, and the exercise of reason and common sense, few that try it will fail to reap profit. At any rate, the average gardener's path is as flowery as the paths of those of any other occupation.—Atlanta, Ga., Southern Cultivator.

The State of Kansas is pretty well underlaid with coal; but it may not save the people from fuel famines. One company has lately gobbled up 7,000 acres of the best coal lands in the State. It is apparently trying to get the whole territory. Then a coal trust will be next in order, and consumers will suffer. There is certainly power somewhere in either State or national government to prevent the extortion of monopolists in the chief necessities of life.—American Cultivator.

Thus far over ten thousand bills have been introduced in the Congress. This is a nice way to waste time, spend money, and get a little cheap glory with innocent constituents for excessive zeal in their behalf. Humbug is not dead.—Wilmington Star.

Sentiment is costly when it causes a farmer to waste forty dollars of provender in keeping a poor, broken-down old horse through winter, when twenty dollars would be a big price for him in spring.