

with no other manure. Last fall I ploughed some land for oats. I intend to put on, say, ten or twelve cords of fine composted manure to the acre; harrow in oats, manure, and seed together. The seed will catch well, and I shall expect two or three good crops of hay. I have managed in this way, and have had good success.

**Gypsum for Potatoes.**

In the region north and west of Boston, and not so far from the city that the farmer cannot go and return with a load on the same day, the early potato crop is a source of large income and fair profit. The potatoes are planted as early in April, as the soil can be made fit to receive them, and taken to market when they are sufficiently large for the table, whether ripe or not. Some of the earliest are sent in the latter part of July, and the bulk of them in August. This is the harvest season for this crop, and occurs before potatoes are brought in from Maine and Vermont. The demand for them at that period is always quick, and at a paying price. Under these circumstances, it is an object for the farmer to get the crop matured at the earliest moment, as one bushel in July will usually fetch as much as two bushels will in September. In order to secure this, various plans are adopted to start them early, such as sprouting them in baskets by the kitchen stove, or placing them in sheltered and sunny places on layers of horse manure, until the germ has pushed out a fourth of an inch, when they are carefully planted. After a thorough preparation of the soil, no application of what is termed special manure, seems to have so favorable an influence on potatoes, as that of gypsum or the common plaster of Paris. Gypsum is made up of

Sulphuric acid.....	43 parts.
Lime.....	21 "
Water.....	24 "

From the numerous successful experiments made by the application of gypsum, it is quite evident that the sulphuric acid and the lime contained in it are highly favorable to the growth of the potato. They tend to keep the potato from rotting, as many fields have given sound crops when dressed with gypsum, while others in the immediate neighborhood have been injured. Indeed, on the same field, where gypsum was omitted, the rot occurred, and where applied, the crop was not affected. The usual mode of application is to scatter a single handful about the root in the hill. Several distinguished chemists found that the presence of gypsum retarded putrefaction. Liebig contends that the nature of gypsum consists in its giving a fixed constitution to the nitrogen, or ammonia, which is brought into the soil, and is indispensable for the nutriment of plants. He says that 100 pounds of gypsum give as much ammonia as 6250 pounds of horse's urine would yield.—*New England Farmer.*

**The Action of Frost.**

The most fertile and productive regions are those where the frost penetrates the earth deeply and exerts its influence during a considerable portion of the year. The action of the frost is a powerful stimulant of the soil. It disintegrates it, and unlocks the closely combined elements and thus acts free vast quantities of plant food. Its action also counteracts the compressive force of rains and the tread of teams and other animals, and so each year lifts up and lightens the compact earth. With frost to aid, the farmer need not plough and cultivate so much, to put the soil in good condition as when this element is not operative.—*Farmers Union.*

**Exterminating Mustard.**

A large portion of the seed will shew and fall to the ground before any cultivated crop can be removed from the field. Then, if the ground be harrowed thoroughly, soon after a crop of grain is removed, almost every mustard seed will germinate, grow, and the plants will die after the weather has become so cold as to freeze the ground. When the land is ploughed in autumn, all the seed that is buried over one inch deep will remain in the ground for an unknown number of years; but as soon as it is turned up to the surface, where the kernels are covered with only a brushing of soil, every one will germinate and produce a plant. If the seed be allowed to remain on the surface of the ground undisturbed until the following spring, every kernel that is covered with only a thin covering of mold will grow.

As soon as the growing season has commenced let the ground be harrowed. All the mustard seed near the surface, will then germinate. As soon as the young mustard appears in the seed leaf, let the land be harrowed again. The harrow will root up and destroy every plant in the seed leaf, and will bring much seed near surface, which will immediately germinate. By this practice some ground may be divested to a great extent of these pernicious weeds before the seed for a crop of grain is put in.—*Prairie Farmer.*

**Potatoes.**

Jonathan Talcott of Rome, writes to the *Journal of the Farmer*: All early potatoes should have richer land than the later varieties, as they have less time to grow in, and therefore require greater nourishment while they do grow to mature a good crop. The Peerless has rotted badly two years out of three on my farm, and is not nearly as good for the table as the Early Rose, in fact, it is not good enough for me to eat when better can be had for the growing. The Prolific is very hardy but not up to the standard for the table. The King of the Earlyies is a better potato than the Early Rose with me for the table, but not so good a yielder, it must stand second best. I have tested the Idaho, the Late Rose, Campbell's and Thorburn's, but of all the various sorts, I think Campbell's the poorest, and I have cultivated some twenty to thirty varieties yearly for a number of years past, and from them all have selected the Early Rose for an early potato and the Excelsior for a late one; have cultivated the Excelsior the past four years; it will yield nearly as well as the Peerless, some years quite equal to it, and is uniformly the best table potato I have cultivated in the past ten years, cooking dryer, and of better flavor than any other potato I have had in that time.

**Avoiding Spring Frosts.**

The manufacture of artificial clouds is reported to have been resorted to in the French wine-growing districts, to protect the crops from frost. The receivers, filled with a peculiarly prepared tar, were disposed over an area of many acres, and when the tar was gone, I think white clouds rose in the atmosphere, and spreading out evenly over a large region, remained suspended several yards above the soil. In seasons when it is feared, the tar clouds would interpose between the crops and the sky, thus checking the night radiation which often causes such ravages in vineyards and gardens both in spring and harvest time.—*La Houe Cult.*

**Long Furrows in Ploughing.**

A German agricultural journal prints a plea for long furrows. The turning of the plough and the commencing of a new furrow require more exertion in the ploughman and the team than continued work on a straight line; and how great may really be the loss of time from frequent interruptions in short turns may be shown by the following calculations: In a field 225 feet long, five and a half hours out of ten are used in redirecting the plough; with a length of 575 feet, four hours are sufficient for the purpose; and when the plough can proceed without interruption for 800 feet, only one and a half hours of the daily working time are consumed.—*Er.*

**Burned Clay as a Fertilizer.**

A correspondent of the *Tennessee Advocate* says that he sowed a field of sixty acres to wheat in 1855, and ploughed it in with turning ploughs. The yield was eight or ten bushels per acre. In sowing, some grains of the wheat fell on an old kiln, among the brickbats and burnt earth, and produced from thirty to eighty-two heads to the stool; the one that had eighty-two heads averaged forty grains to the head, which made 3,280 grains from one cpe grain. He mentions this to show the effects of burnt earth as a fertilizer, which he claims is cheaper and more available to most of our farmers than any of the commercial fertilizers.

**Seeding Land.**

If you have any land to sow down this spring, suppose you try a part of it without grain. This practice seems to be gaining favor wherever hay is of more account than grain. If you have a rich, moist piece of land that ought to be made to produce two or three crops of hay in a season, try orchard grass, at the rate of two bushels of seed to the acre, with eight or ten pounds of clover and a bushel of June grass. This is heavy seeding, but if you will manure liberally you ought to get heavy crops of hay.—*N. E. Farmer.*

**Agricultural Implements.**

**SEED DRILLS.**

The Seed-Drill, as its name implies, is intended to supersede "broad-casting" or sowing by hand. Its advantages are clearly indisputable, and the main reason why it has, in some cases, failed to receive the hearty adoption of excellent practical farmers is, that until within a comparatively recent date it has never been practically applied or adapted to the different requirements of seeding. Now, however, this defect has been fully remedied, so that one and the same implement may be readily and profitably applied to the sowing not only of wheat and the other finer cereals, but also to all the coarser grains as corn, peas, oats, beans, &c., &c.; and likewise to the various fertilizers, as plaster, lime, ashes, guano, superphosphates, bone-dust, salt, &c., &c., either dry or damp.

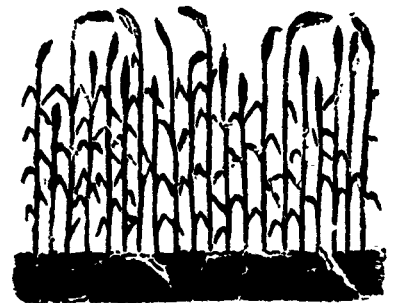
The principal advantages derived from sowing by drill may be briefly summarized as follows:—

- 1st. The seed is delivered with regularity.
- 2nd. It is deposited at a uniform and proper depth.
- 3rd. Weeds, during the growth of plants, are destroyed with greater facility.
- 4th. The plants cultivated receive the undivided benefit of the soil, and have not to maintain a constant struggle with weeds.



Drill-Sowing.

- 5th. By the admission of the sun and air between the rows a stronger and healthier plant is produced, and of course a heavier crop.
- 6th. By stirring the soil it is more susceptible of benefit from the atmosphere—imbibing more oxygen and being warmed and enriched by the sun.
- 7th. The soil being pulverized, the roots shoot out more freely.



Broad-Cast.

- 8th. Clover and grass seed answer incomparably better in the pulverization produced by hoeing.
  - 9th. The grain, being put into the ground at a proper depth, the plants are not exposed to injury by drought.
- In addition to these considerations there is another, viz., that the seed is invariably covered, whereas in hand-sowing, a considerable quantity is left wholly exposed and consequently wasted. And from this fact another follows, which has been verified by experience.—that 25 per cent. of seed is saved by the