

When you think of thinking,
Are you thinking what you thought?
You think you think you're thinking
Of your thinking, do you not?
You think you're thinking. Think of
that.

The thought has come to you—
But do you think of what you think
In thinking as you do?

In thinking that you think you think
Of thinking that you thought,
It makes you think you thought you
thought

Of thinking quite a lot.
But then, suppose your thinking was
Of thoughts you did not think—
Perchance an unthought thought you
thought

Was just on thinking's brink.

You see, you'd think of thinking
Of the thought you thought you
thought

When thinking that you thought of
thinking

Thoughts that came unsought.
So, did the thought you're thinking of
Come thinking at your call,

Or do you think you think you
thought

Of thinking, after all?

—Chicago Tribune.

Providing a Seed Bed

Few if any will be found to disagree with the statement that the seed bed for any crop or plant should be deep and finely pulverized, yet comparatively few stop to ascertain that the apparent seed bed furnished is really of this desirable character. The fact is that our surface skimming methods of cultivation are apt in the long run to render the making of a deep seed bed a difficult operation. The plow annually runs along at the same level. The disc harrow skims the surface, partially turning and pulverizing a few inches of soil. The harrows of various type do similar work, and while all of these implements give us at least five or six inches of fine tilth, the subsoil is left untouched. On many an old farm the use of the spade in the field will show that there is a "plow pan" below the fine tilth of the surface. We have seen such pans almost as hard as a rock and one should be able to imagine the obstacle such a pan offers to root ramification and penetration. Where much lime has been used it strikes downwards and forms a lime pan; then there are iron pans and clay pans and merely compacted earth pans—all of them detrimental to plant growth.

Where a pan of any kind is present it necessarily confines the plant roots to the fine tilth resting upon it. Such an obstacle to root development is like building a fence across a pasture, thereby cutting it into two parts, in one of which the entire herd of cattle must find sustenance. Such a procedure would necessarily half starve all of the cattle, whereas free access to all of the field would have maintained the entire herd in good condition. When the fine tilth we hear spoken of so much is but five or six inches deep and under it an impenetrable mass of sour, hard, air-tight soil the latter impediment to plant progress is like the fence we have referred to and the starvation it entails is similar to that suffered by the herd of cattle referred to.

In our spring operations, when the tendency is to rush seeds into the ground as fast as possible, little attention is paid to the depth and condition of the seed bed. Supposing the land is plowed just as soon as the frost is out and harrowed and seeded the moment the surface dries out sufficiently, what of the underlying layers of soil? The first plowing leaves the surface covered with a mass of hard, wet, sour lumps. These gradually dry out on top—enough to allow the harrows and seeder and plant drag to form a shallow seed bed. The bad condition is now "out of sight"

and also "out of mind." But it is there all the same, and the plant finds it out all summer long and the roots run up against a snag when they attempt to burrow lower than the fine tilth for sustenance. The fence has been erected and it shuts off more than half the field! Such surface skimming may enable the farmer to get his seed covered quickly so that he is not behind his neighbor, but is it the best way of working the land and treating the crop? By no means. Thorough work means maximum returns. Half the field thoroughly tilled would often produce as much as the entire surface "gone over" in a hurry. Compare the action of the spade in the garden with that of the labor saving implements in the field. Spaded to its full depth the garden soil produces an hundred fold; tickled superficially the field soil gives returns accordingly. Deeper, more thorough cultivation in the field would insure returns similar to those of the deep spaded garden. We are coming to this some day and it is time to pay attention to the soil that is out of sight as well as that which is apparent to the eye. If we do not then we fail to draw upon the full resources of the soil. We have to manure freely and even stimulate by application of chemical fertilizers for the reason that we confine the plant roots to a circumscribed five or six inches of feeding ground year after year. Could we add a little of the subsoil each fall for winter disintegration and oxygenation fresh plant food would be added annually for plant use. Could we break up the plow pan and allow air to enter the under stratas of the soil plant food would be set free and more plant food acquired. Drainage helps materially in bringing about these desired ends. Deep fall plowing assists in the same way by allowing the frosts of winter to "weather" the soil. Thorough plowing is absolutely necessary towards the same end and some system of subsoil stirring will sooner or later prove necessary.

Even now and although spring plowing has been substituted for fall plowing, we can at least do something to provide a deep seed bed. We can quit the foolishness of merely rubbing down the clods to form a sufficient amount of fine earth to cover them and afford the necessary covering for the seed. We can see to it that the clods are sufficiently dried to allow of perfect disintegration by means of harrows, discs and drags. In short we can do work much more thoroughly than we have been in the habit of doing and in so doing the crop will pay for the labor involved. This plan may keep the thorough farmer a trifle behind his galloping neighbor, but depend upon it he will come out ahead at harvest time and in the long run. The farm, too, will last longer, for it is evident that a shallow seed bed is soonest impoverished, whereas the deep bed has greater resources, and may be kept intact by subsoil additions judiciously furnished in the fall. We may be excused for repeating the ancient adage that "what is worth doing is worth doing well." That expresses the idea correctly. Cultivation is only to be considered such when it is thorough.

The outer covering of the seeds of all plants has more or less power of absorbing water. In such plants as corn and wheat the cases absorb water at almost any temperature, but with such seeds as the Honey locust it is not so, especially if the seeds have been allowed to become dry. Such seeds will lie for months in tepid water and will not absorb moisture, but when the temperature of the soil or water is raised to a certain point they absorb water readily. Nurserymen sometimes start such seeds in quite warm water

Seeds should not be planted in cold soils. Not till the ground becomes quite warm can most seeds germinate, and planting them before that time does little good and frequently causes the loss of the seeds.

Spring Ailments of Horses

There is perhaps no disease more hurtful to horses in spring than influenza in its varied forms. Under this name we include what many farmers call "swamp fever," also that set of troubles known by the names of "distemper," "pink eye," catarrh, cold, chill, spring fever and a host of other simple and common appellations. While most attacks of these troubles are in time recovered from under ordinary treatment, the worst feature of the ailments is that they reduce work horses in condition and often retire them from labor for weeks or even months just at the time of year when the services of the animals are most required. Looking at the matter from an impartial and just standpoint we conclude that treatment meant to benefit the sufferers is often the true cause of the after-debility of the patients. Old-fashioned ideas as to treatment still prevail and as a rule are based upon erroneous conceptions of the disease proper and the action of drugs employed by the empiric. Aconite, for instance, is a sovereign remedy, and is commonly employed for every phase of fever affecting horses. While this valuable drug allays fever, to be sure, it also slows the heart—practically numbs and weakens it—and thus enfeebles circulation of the blood, which is the life-giving fluid and the chief renovating and recuperating factor in the convalescent horse. Aconite, instead of being a household remedy, should only be employed by a man educated to discern the import of the pulse. His finger should be trained to the fine differences to be noted by one familiar with pulse taking. If this is not the case then aconite is more apt to do harm than good, and the writer has seen many horses actually poisoned by the drug and many more so enfeebled by its action that months were required to restore them to normal vigor. Stimulants rather than heart sedatives like aconite should be generally employed, and, as a fever reducer, simple saltpeter is far more valuable, reliable and safe than aconite. It is given in one to two teaspoonful doses three or four times daily, according to the height of the fever, and may be mixed in drinking water or soft feed, or dissolved in water and given as a drench, along with two ounces of whiskey at a dose to act as a stimulant and one to two teaspoonfuls of fluid extract of gentian root to help the appetite. In influenza of all forms there is great irritability of the mucous membranes of the air passages, and, in fact, throughout the entire body; and this has to be remembered, else irritant medicines may be given and cause the death of the patient. For this reason a purgative should never be given to a horse suffering from influenza or any form of fever implicating the respiratory organs. An aloes ball will, for instance, cause super-purgation and death in an animal suffering from distemper (influenza) or any of its complications, such as pneumonia or pleurisy. If the bowels are costive a tablespoonful or two of glauber salts twice daily in a bran mash or a few roots will serve, as a rule, to open the bowels sufficiently; but even this saline laxative must be very carefully used. Better than the old-fashioned use of aconite is the addition of small doses of fluid extract of belladonna leaves, in conjunction with saltpeter, gentian and stimulants in the treatment of colds, coughs, influenza and the like. The dose is 20 drops and will serve to alleviate irritability in any form and aid the febrifuge in the reduction of the fever. Better than any other treatment, however, is the new plan of injecting medicine into the jugular vein of the horse at the outset of the attack. The medicine used is called tallianine and it sets free ozone in

the blood, which tends to destroy the germs producing the disease, increase the red corpuscles and leucocytes and so rid the body of the germ enemy present. Almost any horseman can bleed a horse from the jugular vein. When this can be done it is a simple matter to inject tallianine. Simply raise the vein, insert the hypodermic needle downwards, fit the syringe barrel containing the dose (10 cubic centimeters) and then inject the contents slowly. The treatment has to be repeated every twenty-four hours for a few days.—A. S. Alexander in Farmers' Review.

No Substitute for Cleanliness

We want to produce good milk, says R. A. Pearson. Those who are indifferent upon this point fail to appreciate the great responsibility of their work and need to have it impressed upon them that milk is our most delicate food product and, unlike most other foods, it is almost always used raw. Gross carelessness, ignorance or neglect on the part of the dairyman may endanger human lives. The production of a uniformly good milk results in an immediate advantage to the individual producer and to dairy-men as a class, because every gallon of good milk tends to enlarge the market, while every gallon of poor milk or bad milk tends to lessen the market. The dairyman who establishes a reputation for the high quality of milk he produces will seldom lack for a profitable outlet. Sometimes it seems to be hard to get a fair price for high-grade milk, but so many are doing it that the possibility is plainly shown. In the main, the old doctrines regarding the production of wholesome milk remain true. Cleanliness continues to be the great need. Its neglect is the chief drawback of dairying in too many places. Neither the scientist nor the inventor has been able to suggest any measure to replace cleanliness in dairy work. It may come, but it has not yet. Aeration, straining, filtering, clarifying and pasteurizing are only ways of partially reducing the effects of contamination that should not have occurred, and the benefits of some of these forms of treatment are vastly overestimated. The fact is, that good, reliable milk cannot be produced in a dairy where cleanliness does not rule. Bacteria and dirt are close friends. Wherever dirt goes bacteria go, and the moment they get into warm milk, their objectionable work begins. The more dirt the more bacteria and the worse the contamination. Fraser has shown that from 22 to 90 times as much dirt falls into the milking pail from a soiled udder as from a cleaned udder, and Stocking has shown that by the use of a partially covered milk pail about two-thirds of the dirt that would fall into the milk during milking, is excluded.

A Youthful Cat's-Paw.

Aunt Fanny had just returned from Boston and gone to her room.

Little Fred knew there was something in her trunk for him, but having been strictly taught never to ask for gifts he could only hang anxiously around Aunt Fanny's door, waiting for the happy moment of unpacking.

When he felt that he could endure the suspense no longer, he tapped timidly on the door and in answer to the call of "Come in!" said in a wee, small voice, as he pushed the door open a few inches:

"Aunt Fanny, Baby says 'When are you going to unpack your trunk?'"

Baby was three months old!

Swine will probably eat a greater variety of food than other animals, their diet consisting of various herbs, grasses, clovers, roots, grains, fruits, nuts, flesh, fish, etc.

As long as a soil is wet it will not warm up; as water is a poor conductor of heat.