WATER FOR CROPS

Absence of Air, Bacteria, Moisture and Plant Food in the Soil Limit the Growth of Crops.

The Physical Composition of the Soil is Changed by Lime so That Cultivation is More Effective in Bringing About the Conditions Necessary to Control the Supply of Soil Moisture and for the Production of Good Crops.

Wet and dry seasons are the course of nature, but she distributes them with a rough hand. It takes the skill of man to temper her prodigality and make over her niggardliness by art. Moisture first, last and always is the need of the crop. Water is plenty for the growing plant, sunshine without drought is the promise of its maturing. A farmer must be weatherwise and have judgment to steer between the disappointments of the seasons. Our weather service helps the judicious, who never forget in all their use of it, both in the success and in the failure of predictions, that it is "Old Probabilities" after all. The wise keep track of averages as well as of the days and remember how much their crops measured each year with rainfalls above and below the mean of 40 inches. Some men do well largely by dodging the weather. Keep your eye on them, they love to tell what they know. Diligent till age stands for two things—air for plant roots and soil bacteria, drainage for excessive water and husbanding of sparse moisture against wasteful evaporation. Plowing and clod breaking provide for aeration and drainage is favorable soils well situated. Cultivating, mulching and rolling protect the surface from excessive evaporation. In dry weather damp earth is always found nearer to the surface, the crumbler, finer and evener this is.

Assist Nature to Control the Supply of Soil Moisture.

But the lay of the land may not be enough to insure its drainage of surplus water. Then it becomes necessary to help out with ditching and tiling. Again, it is often steep to a degree; that moderate rains run off before the water is properly absorbed and heavy rains pour down the slope, removing large amounts of valuable soil and cut the fields with bad gullies. The loss is twofold—failure to saturate the ground with moisture needed for the growing period and a direct loss of soil, which is almost always a greater loss of working capital than most men appreciate.

Even Distribution Through the Season Important.

In these ways judgment and labor go to distribute the moisture stock of the soil through the season. The methods appeal to common sense, but men who do most of these things and have seen all of them done know that the nature of many soils is such that the result is still insufficient without clearly seeing why. The reason is that all material, including soil, is in its nature chemical, and when its nature is extreme, working it and arranging it is not enough. It must have its chemical nature changed—that is to say, modified, or, as it is called, ameliorated. This can only be done with a chemical. If a soil is sticky, if plowing and cultivating puddles it instead of breaking and crumbling it, there is but one remedy for this condition, and that is a chemical one—a lime treatment. The amount of lime to use is in proportion to the stickiness of the soil and greater than what would be needed for merely sweetening it. The kind of lime is also important and all students and teachers of the subject are agreed that only burned lime answers the purpose. Practical experience has shown that the chemically hydrated form is most effective.

The Effect of Lime in Different Soils.

To the practical man it may look contradictory that the same chemical which softens a sticky soil will bind a sandy one. And yet this is true. But it will not seem strange if you remember that that is what lime does in making mortar. This reflection will also lead you to see again that here again burned lime is the better form, although pulverized limestone is often recommended. In a sandy soil the lime dressing should be hardly as great as might be necessary to sweeten it thoroughly. Its advantage over ground limestone will then be appreciated.

A WELL TILLED FIELD OF CORN.

FEW FIELDS ARE TOO WELL SUPPLIED WITH HUMUS NOT TO BE IMPROVED BY A WINTER COVERING OF SOME CROP.

WINTER VETCH AT MARYLAND EXPERIMENT STATION FARM.

MAKES A GOOD GREEN MANURE CROP AND THRIVES BEST ON ALKALINE SOILS WELL INOCULATED.

PLAN YOUR GARDEN.

Vegetables grow rapidly and need plenty of available plant food, and garden soils become acid. Do not leave it until too late to get your supply of lime, fertilizers and manure for next spring.

Ain't No Such Critter.

You may find a white cow, you may discover a child that won't eat candy, concedes a farmer of our acquaintance. It may be there is such thing as a street loafer who would refuse an election cigar. But if you want to think of something that there simply ain't any such thing, remember it's the man who won't say, "I wouldn't a took $5 for him," when his worthless cur gets killed.

When the positive pole of the truth meets the negative pole there is the spark called a paradox.

It somehow seems unfair for a fellows ancestors always to be butting in and kicking holes in his purpose.

The old conservatives and radicals seem to be having a hard time of it in Russia.

A BETTER WITNESS.

A driver who had been brought before the court charged with cruelty to animals admitted that he had driven a galled mule, but demanded acquittal on the testimony of a veterinarian, who declared that the sore on the mule's back did not pain the animal in the least. The judge listened to the long technical opinion, says Case and Comment, and then asked where the mule was. When he heard that it was harnessed to a wagon that stood in front of the court house, he adjourned the court for five minutes.

He took his cane and proceeded to the street, went up to the mule and with the end of his stick gently touched the sore spot on the animal's back. The mule promptly tried to kick the dashboard off the wagon. Once again the judge touched the sore spot with his cane, and the mule responded as before.

The judge returned to the bench and ordered the prisoner to appear before him.

"With all due respect to the expert testimony you have introduced in your behalf to show that the mule's back does not pain him, I will fine you fifty dollars," announced the judge. "I asked the mule if the sore hurt him and he said it did."—Youths Companion.

SAYS HE ISN'T DEAD.

The daily papers reported that Louis G. Lacy, of Denton, was among the missing when the transport Tuscania was torpedoed near the Irish coast. It was inferred that Mr. Lacy was a member of the corps of foresters going to France. He made application to enter the service last fall, but concluded to remain on the farm. He lives near Anthony's Mill, a few miles from Denton. Mr. Lacy called at the Denton Journal office and let us know that the reports that he had been drowned by a German submarine were greatly exaggerrated.—Denton Journal.

AIRPLANE POSTAL LINE.

BIDS ASKED FOR FIVE MACHINES FOR SERVICE BETWEEN N.Y., PHILA. AND WASHINGTON.

Establishment of an airplane mail service between Washington, Philadelphia and New York, during the coming summer was indicated when the Postoffice Department called for bids on five airplanes for that service.

The service will begin with one round trip a day and will later be expanded. First-class mail only will be carried at the outset of the service.

The specification of the Postoffice Department calls for machines which have stood satisfactory test in the War and Navy Department's service. The bids will be opened February 21, and the airplanes will be delivered not later than April 25, this year. Arrangements have been made with the War Department to release a sufficient number of motors to equip the machines.

"It is not the purpose of the Postoffice Department to make this an experimental service," Postmaster-General Burleson announced. "Its practicability is to be assured before the establishment of the route. Once established it is to remain a permanent fixture."

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