

# \$500 More a Year Farming: How to Get It

## BY DRAINING THE LAND.

All Our Level Land and Much of Our Hill Land Needs Under-Drainage—The Work Must Eventually Be Done and Should Be Begun Now.

By Tait Butler.

**C**LIMATIC conditions, especially rainfall, exert a powerful influence on soil fertility. We have frequently pointed out facts relating to this matter which seem to be generally overlooked. Our long, hot, moist summers cause a rapid decay of all organic matter that may be on or in the soil, and the heavy rainfall and open winters favor the washing and leaching of plant foods out of all unprotected lands. The first step towards maintaining the fertility of Southern soils is a full recognition of these climatic conditions. Our rainfall of from 50 to 60 inches annually plays a more important part in soil fertility and land management than is involved in merely supplying the necessary moisture to our crops.

On the other hand, this large rainfall produces other soil conditions which necessitate drainage, besides those connected with an excess of moisture in the soil. Soil that is depleted of soluble plant foods and eroded by excessive rains at certain seasons, requires drainage even though it may be dry enough at other seasons to produce profitable crops. In other words, an excess of moisture in the soil at any season, for any considerable length of time, is injurious to the land. This injury comes not only from leaching or washing, but also from excluding the air, killing germ life and running the soil together, all of which lower the fertility of the soil at other seasons of the year. In fact, lands that remain saturated with water for any considerable length of time, suffer most from lack of moisture in the surface soil in periods of dry weather.

### We Must Both Dispose Of and Save the Rainfall.

Our problem, then, is not alone to carry off the water so that the land will be sufficiently dry during the crop growing season, but to also so handle and dispose of the heavy rainfall at all seasons that it will do least injury to the land and be most readily available during periods of drouth. We have a problem in disposing of our heavy rainfall on the rolling lands scarcely less important than that of taking the water off the low lands. When we have solved these two problems we shall have solved the greatest problems in soil management which confront the Southern farmer. Extremes of moisture in the soil are disastrous to crops, and the one is more or less dependent on the other. At least, the excessive moisture which we have on practically all lands at certain seasons, is one of the chief causes why we suffer so severely from dry periods when they do occur; for unquestionably, land which is well drained or is never too wet for any considerable length of time withstands dry weather best.

### Where Under-Drainage is Needed.

Practically all level lands would be improved by under-draining, and much of the rolling lands would be benefited almost as much by under-drains that would help to carry off water, thereby reducing the quantity which now goes off over the surface. Moderate rainfalls may be absorbed by a soil well filled with humus, and if it be tilled or under-drained, it will take in, and properly dispose of, a much greater quantity, but both these are needed, as also is probably

every additional aid obtainable, to take care of the torrential and continuous rains which we sometimes have. The handling of the water which falls on our soils is a much more important problem than Southern farmers have yet realized. Too much of these heavy rainfalls now goes off over the surface, carrying with it the finest and best soil particles; while still further destruction to soil fertility results from too great quantities remaining in the surface soil for long periods.

### Where Surface Drainage Falls.

The foregoing observations point unmistakably to one conclusion, and that is, that the under-drainage of the larger part of our soils is a necessity to the highest soil fertility. Surface drainage is merely a makeshift, and is in any case an evil, which must under ideal conditions be reduced to a minimum. In most cases it is better than none, and being cheaper, is sometimes the only sort of drainage possible and, therefore, a necessity, but the best results will never be obtained on practically all our lands until they are tile drained. Our excessive rainfall at certain seasons makes this under-draining doubly important with us, and causes it to be needed on a much larger proportion of our lands than where the rainfall does not exceed 35 inches annually. There is another reason why tile draining must increase, and that is the necessity of doing away with short rows and the obstructions offered to the use of larger implements by open and hillside ditches.

It may appear impracticable to suggest the tile drainage of land that is not worth but \$10 to \$25 an acre, to people who are financially poor; but we are convinced that many acres which are now scarcely worth the \$10 or \$15 at which they are valued, would be better worth \$50 to \$100 an acre if tile drained. However, we do not expect all our lands to be tile drained in the near future, nor are we advising it; but we do insist on the wisdom of working to that end by starting the work at once and laying as many tile each year as the available resources will permit.

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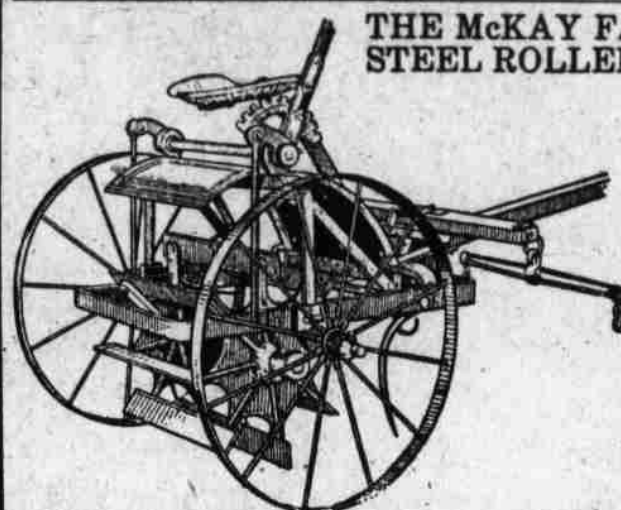
### Tobacco Crop Conditions.

The United States Department of Agriculture makes the following estimate as to the condition of the tobacco crop on October 1:

|                   | 1910 | 1909 | Ten-Year Av. |
|-------------------|------|------|--------------|
| Kentucky . . . .  | 80   | 81   | 83           |
| North Carolina    | 73   | 77   | 78           |
| Virginia . . . .  | 85   | 88   | 83           |
| Tennessee . . . . | 81   | 82   | 84           |
| South Carolina    | 74   | 84   | 82           |
| Florida . . . . . | 87   | 85   | 89           |
| United States . . | 80.2 | 81.3 | 83.0         |

The enormous number of tuberculosis sufferers, curable on a hygienic and dietetic treatment, who place their faith in promises of a cure made by patent medicine advertisers, should suffice to kindle a flame of indignation among the American people that will ever increase in intensity until the patent medicine devil is cast out of our midst.—Jno. A. Ferrell, M. D.

The soil for early crops should be plowed early and tilled often.—Professor Fletcher.



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