

GOOD FARMING

FUNDAMENTAL PRINCIPLES

Fall Breaking of Land and the Preparation of the Seed Bed—The First Step in the Betterment of Farm Life.

United States Dept. of Agriculture, Farmers' Co-operative Demonstration Work.

Upon the inauguration of the Farmers' Cooperative Demonstration Work in the Southern States it was found necessary to outline some of the fundamental principles of good farming and to insist that the tillers of the soil should become familiar with them and practice them as a first step in the betterment of farm life. These principles are as follows:

(1) Prepare a deep and thoroughly pulverized seed bed, well drained, break in the fall to a depth of 8, 10, or 12 inches, according to the soil, with implements that will not bring too much of the subsoil to the surface. (The foregoing depths should be reached gradually if the field is broken with an ordinary turning plow. If a disk plow is used, it is safe to break to the above depths at once.)

(2) Use seed of the best variety, intelligently selected and carefully stored.

(3) In cultivated crops give rows and the plants in the rows a space suited to the plant, the soil, and the climate.

(4) Use intensive tillage during the growing period of the crops.

(5) Secure a high content of humus in the soil by the use of legumes, barnyard manure, farm refuse, and commercial fertilizers.

(6) Carry out a systematic crop rotation with a winter cover crop on southern farms.

(7) Accomplish more work in a day by using more horse power and better implements.

(8) Increase the farm stock to the extent of utilizing all the waste products and idle lands of the farm.

(9) Produce all the food required for the men and animals on the farm.

(10) Keep an account of each farm product, in order to know from which the gain or loss arises.

PREPARATION OF THE SEED BED.

Prepare a deep and thoroughly pulverized seed bed, well drained; break in the fall to a depth 8, 10, or 12 inches, according to the soil, with implements that will not bring too much of the subsoil to the surface. (The foregoing depths should be reached gradually if a field is broken with an ordinary turning plow. If a disk plow is used, it is safe to go to the above depths at once.)

It is the purpose of the Farmers' Cooperative Demonstration Work to insist upon such preparation of the soil as will furnish the best feeding grounds for the roots and such as will provide at all times plenty of moisture and food for the growing plants. It is better to secure 10 or 12 inches of well drained, thoroughly pulverized soil filled with humus than to go deeper at the expense of less thorough preparation.

The presence of heat, air, and moisture is essential to chemical and germ action in the preparation of plant food in the soil. The depths to which these penetrate the soil in the South depends upon the depth of the plowing, provided the soil is well drained. There is no use in plowing down into a subsoil full of water.

It has been proved without question that the roots of plants penetrate the soil deeper and feed deeper in deeply plowed land. Thus, in general, it may be stated that when the soil is plowed 3 inches deep the plants have 3 inches of food, when plowed 6 inches deep they have 6 inches of food, and when plowed 10 inches deep they have 10 inches of food. The fact that the bottom portions of the plowed land are not as rich in available plant food as the top portions shows the necessity of getting more air and heat down to them by deeper tillage.

The soil requirements most essential to the growth of plants are heat and moisture. Deep breaking insures air and heat at a greater depth.

For plants to do their best there must be in the soil a constant

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supply of moisture, so that a film of water can envelop the soil particles and absorb nutritive elements. The hair roots of plants drink this for nourishment. If there is any more than enough to serve as films for the soil particles and capillary water, there is too much, and it should be drained off. This can be determined by digging a hole 20 inches deep. If there is standing water in the bottom of the hole, it indicates that there is too much water in the soil or subsoil.

The capacity of a given soil to hold film and capillary moisture depends upon how finely it is pulverized and upon the amount of humus in it. Unplowed lands retain but little water. Thoroughly pulverized soil 3 inches deep can not store enough to make a good crop.

In all Southern States there are every year periods of drought, sometimes not serious, but generally sufficiently protracted to reduce the crop. The remedy for this is increased storage capacity for moisture. This can be accomplished by deep and thorough tillage and by filling the soil with humus (partly decayed vegetation.) The effect of deep tillage has been explained. The effect of humus is to increase greatly the storage capacity of

soils for water and to reduce evaporation. A pound of humus will store seven and one-half times as much moisture as a pound of sand, and the sand will lose its water by evaporation three and one-half times more rapidly than the humus. A clay soil will store only about one-fourth as much moisture as humus, and will lose it by evaporation twice as rapidly.

Plants use an enormous quantity of water. An acre of good corn will absorb and evaporate during its growth nearly 10 inches of water. About three-fourths of this amount will be required during the last 75 days of its growth, or at the rate of 3 inches of water a month. This is in addition to evaporation from the soil, which, even with the retarding influence of the dust mulch, will amount to several inches each month in midsummer.

In case the land is plowed only 3 or 4 inches deep, though thoroughly pulverized, it will store an amount of moisture entirely insufficient to supply crop requirements in any protracted drought. These shallow and generally poorly prepared seed beds are the principal cause of the low corn yields in the South, and they effect the cotton yields similarly but not so much, because cotton is a more drought-resistant plant than corn. If planting is done at all, it is folly to prepare a seed bed so shallow as to bring about the almost total loss of the crop some years and a reduced crop every year.

Many farmers plow or cultivate their corn nearly as deeply as they break their land in preparing a seed bed; this leaves no space for roots in the pulverized and aired soil. Roots occupy a large space. If all the roots of a single vigorous cornstalk were placed end to end they would reach more than a mile, and if allowed by the plowing they will fill the soil to a considerable depth and feed in all portions of it. In the principal corn-producing areas of the South the annual rainfall is 35 inches or more, and here in a soil properly prepared for corn the great body of the roots will lie from 3 to 12 inches from the surface and will feed within 2 inches of the surface if allowed by shallow cultivation.

THE ROOT SYSTEM OF CORN. At the Wisconsin Agricultural Experiment Station it was found (Continued next week.)

SIX PER CENT. MONEY TO LOAN
If you are desirous of a loan on your farm or city property, for purposes of lifting a mortgage whose rate of interest is high, or to buy property and stop rents; to go into business for yourself, or anything which takes money to do, we offer you a plan of securing the money at a low rate of interest with SEVEN YEARS and NINE MONTHS to pay back. No rights reserved to call in your loan. No interest to figure. No notes to renew. The option of paying off when you please before the notes mature. Loans under this system are granted from \$1,000 up.
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A good REAL ESTATE purchase will place you on firmer footing of independence in less time than any other SAFE way. Are you in better shape financially now than you were a few years ago, to make good on the improvement or purchase question? YES—YOU—ARE, decidedly; our modern methods make it possible for you.
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Notice of Tax Round and Public Speaking
I will meet the tax payers of Stokes County, for the purpose of collecting their taxes for the year 1910, at the following times and places:
Monday, Oct. 10, 1910.
Tuesday, " 11, "
Wednesday, " 12, "
Thursday, " 13, "
Friday, " 14, at night.
Saturday, " 15, 1910.
Monday, " 24, "
Tuesday, " 25, "
Wednesday, " 26, 1910.
Thursday, " 27, "
Friday, " 28, "
Saturday, " 29, "
Monday, " 31, "
Tuesday, Nov. 1, "
Wed., " 2, "
The county candidates will be at the above places on the above dates and will address the people on the political issues. Please come out and pay your taxes and hear the county candidates.
This the 12th day of September, 1910.
C. M. JONES, Sheriff.
14-sep-5 oct

BIG AUCTION SALE OF LAND!
SATURDAY, OCTOBER 1, 1910.
At 12 o'clock, we will sell our farm of 529 acres, the old home place of our father, the late Jno. R. Caviness, near Col. J. R. Lane's mill, in eastern part of Randolph county, North Carolina. This valuable tract of land has been divided into nine tracts, the shape of these tracts is good, having good outlet for roads and with timber and water on all of them. The land is well adapted to farming, stock raising, and has a good supply of oak and pine timber. One tract is all timber. This sale is at public outcry on the premises to the last and highest bidder.
TERMS OF SALE
Are \$100 down on each tract and \$100 each year and the interest on the balance due, the land to stand good for the balance due. This sale will positively be held at our late residence of Jno. R. Caviness, on the premises of this land Saturday, October 1st, rain or shine, at 12 o'clock. This land is 1 1/2 miles south-west from Siler City, ten miles south-east from Rameur, eight miles west from the railroad, four miles east from Coleridge, and five miles north from Bennett, N. C., the new railroad station on the Hills & Western, which is being built to Coleridge. When this road is extended from Bennett to Coleridge this will bring the road in two miles of this land. At present not much of this land is in cultivation, most of it grown up in briars and timber, it having been ten years since the land has been cultivated to any amount. Yet during the late war and since some 200 acres were cultivated, and now all title and getting better each day. We will now give a brief description of each lot of this land:
TRACT NO. 1.—This tract of 68 1/2 acres is oblong in shape, is the original old time place, has fair buttings, a fine evergreen spring of excellent water, some good meadows, good orchard, considerable timber, and the general lay of the land is reasonably level. This would make a nice farm, has public road running through it, a large branch also runs through the tract, on which are some good bottoms, also affording water for a good pasture.
TRACT NO. 2.—This tract lays just west of Tract No. 1. This is all wood-land, has some timber and the general lay of the land is well suited for farming purposes. The shape of the tract is good—nearly square. On the west it is bounded by Big Brush Creek. This tract is good strong land and will make good wheat or corn without fertilizers. It has 4 1/2 acres and would itself make a nice little farm, and has good road outlet.
TRACT NO. 3.—This tract of 63 acres is almost level, and nearly every foot of the tract can be cultivated. It has also a lasting spring of water and one of the best meadows in the county, a fair amount of timber, and a public road forms the eastern boundary. On the eastern end is a most beautiful place to build on the public road. This tract would make a beautiful little farm, some 15 or 20 acres, could be quickly and easily put in cultivation and is the very best of wheat land.
TRACT NO. 4.—This is a choice tract, has two country roads running through it, has some fine oak on a forest pine, the land lays well to farm on, has spring water, and the shape of the tract is oblong. The western boundary is Big Brush Creek. A fine mill site is on this and the land crosses the creek, giving ample room for water power development, good pasture, could be had on this large creek. This is strong land and would make a fine corn farm. It contains 62 1/2 acres.
TRACT NO. 5.—This tract is almost level, would make splendid wheat farm. It has some timber, mostly forest pine, some oak as well. The shape of this tract is nice at all angles. A public road makes the eastern boundary.
TRACT NO. 6.—This tract is small, only has 44 acres on it. It is to be found some splendid farm land. This land touches both Little and Big Brush Creek, and some fine bottom land is on these creeks where they come together. There is plenty lasting spring water and good country roads run through it affording ample outlet, and could be used to what decided advantage for farming and stock raising. The shape is fair—nearly oblong—has some timber, especially fine cedar.
TRACT NO. 7.—This has 80 1/2 acres—a farm by itself has timber, plenty water, some ten acres of meadow. This tract is also oblong and nearly every acre on this tract could be cultivated as it lays so well. This would make a splendid wheat, corn and stock farm. A public road makes the eastern boundary and a good place on the road to build.
TRACT NO. 8.—This tract, though small, having twenty-five acres, is all well timbered, lays on Little Brush Creek. This has oak, poplar and pine, some cedar. The pine, though old, is very fine—not short, scrubby pine, but tall, yellow pine with slick bark, and will make fine lumber. When the timber is cut the land is strong and will make good corn or wheat. The creek has good bottom on it, and saw mill men will make no mistake to look well after this tract.
TRACT NO. 9.—The last tract to describe is one of the best, if not the best. A public road forms the eastern boundary, and Little Brush Creek runs through this seventy acre tract. A fairly good farm house and barn are about the center of the tract. Some eight good spring are on this. The hill land is real and will grow clover or almost anything, while the bottoms on the creek and branches will just make all the corn you would need. A beautiful place on the eastern boundary to build on is on a public road, in one-fourth mile of Col. J. R. Lane's mill.
We are selling this land because we don't need it. We live too far away to cultivate it ourselves and such valuable land needs to be put who will cultivate and improve it. The brief description we have given of each tract does not tell all of them justice. Come and see them yourself or write us for a y in more than you want and we will take pleasure in answering any question you ask at the land. With us there is no late plans of farming no selling, what amount of acre could be made on the land. (Note the old place 200 bushes of corn has a deep mole and 500 bush is of wheat, when people did not know how to farm. The till is as can be seen, our father and grand-father have held it a title continuously for 100 years. Both we and our father will say a rural free delivery mail route runs through the entire tract, giving a daily mail, and we will send you by express a. Remember, this sale will be held rain or shine on the premises, near the late residence of Jno. R. Caviness, Saturday, October 1st, 1910. Come on a holiday—money, money and child-entertainment, and see this valuable land sold a tract at a time to the last and highest bidder. This land has been surveyed right recently and all corners and lines are as plain as they need to be.
If additional information is wanted write or come and see us.
JOHN A. CAVENESS,
ROBT. L. CAVENESS.
Coleridge, N. C., Sept. 1st, 1910.
Nsep14w

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WILL BE THE GREATEST FAIR EVER HELD IN NORTH CAROLINA. GREAT AGRICULTURAL, LIVE STOCK, POULTRY AND COMMERCIAL EXHIBITS.
RUNNING AND TROTTING RACES, MULE RACE, COUNTRY HORSE RACE, ETC.
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EVERY DAY A BIG DAY.
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At night shows will all be open. Also the most elaborate fire works program ever given in the country.
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The latest product of science is VELVO Laxative Liver Syrup, purely vegetable, gentle, reliable and of a pleasant, aromatic taste. Velvo acts on the liver, as well as on the stomach and bowels, and is of the greatest possible efficacy in constipation, indigestion, biliousness, sick headache, nervousness, colic, flatulence, etc. Try it.
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