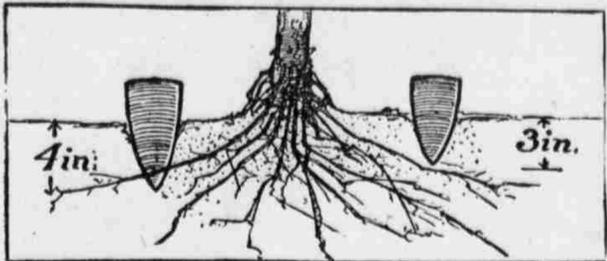


CULTIVATION IS BEST IN APPLE ORCHARD



Keep Away From the Roots, or Cultivate Very Shallow—Every Root Broken Off Injures Tree.

(By M. R. CONOVER, Red Bank, N. J.)
The orchard in question was in sod of permanent orchard grass when it came into my possession four years ago, having been seeded two or three years before. Three of the four years since I bought it this section has suffered severe droughts in the summer. There was quite a lot of deadwood in the orchard and this was cut out the first year. The scars healed over with the bark in many instances, indicating a vigorous condition of the trees. The next year a more drastic pruning was given and the succeeding year a good crop of fruit was borne. The soil of an adjoining field received thorough cultivation and this extended under the outer row of apple trees. The third year the trees through the center of the orchard began to die back to an alarming degree and the foliage turned a sickly yellowish green. Examination revealed no scale insects, but I feared some invisible pest was at work in my orchard and my trees must go. However, early last spring I turned under the sod in the entire orchard and have cultivated the soil all the season. The trees are toning up, but it is going to take more than a couple of years to get back to normal condition—if not longer.

The trees on the outer edge which received cultivation last year have suffered no dying back, but have grown long, vigorous branches which last year bent to the ground beneath a load of fruit, and the foliage is a fine dark green. If I had turned the sod under the first year I have no doubt that my crop of apples would have been abundant, judging from the cultivated trees, yet the soil has had no fertilizer aside from the turned under sod. I believe that two years is long enough for any orchard to be kept in sod. Of course a clover sod would have given better results. Judging from the appearance of many orchards over this section of the country I believe some growers are putting too much faith in sod; that is, they are leaving the sod upon the orchards too long and wherever this is being done the trees look about as mine did. I have a row of Baldwin apple trees along a lane. A wide strip of fine sod has grown under them on the roadside for many years, but the field they border is under continual cultivation. The trees are healthy and vigorous and bear fruit well, so it seems that partial cultivation does much to keep the trees in good condition.



ROAD BUILDING

GOOD ROADS AND MOISTURE

When Soil is Dry it Crumbles to Dust and When it Contains Too Much Water it Becomes Mud.

(By W. C. PALMER, North Dakota Experiment Station.)
One of the important factors in roadmaking is to control the moisture content of the soil in making up the roadbed. When the soil is dry it crumbles to dust and when it contains too much water it becomes mud. These are the two extremes to avoid. To make a hard roadbed the soil must contain a fair amount of moisture. The control of the moisture requires that the roadbed be higher in the middle and smooth so that water cannot stand on it but will run off. If water



Good Road in North Dakota.

can stand on the road, ruts will result and when these are ground down dust forms and finally a loose roadbed results. Keeping the roadbed well crowned and smooth will hold the moisture in it so that it will pack hard. Weeds must also be kept several feet from the wheeltrack else they will draw the moisture from the roadbed and thus loosen it up; this is especially true in regions of moderate rainfall. Trees should not be allowed to shade the road as this keeps it too moist on the surface after rains so that traveling spoils the surface. The making of a smooth roadbed requires that when the soil is put on, it be laid in layers and not in piles. When dumped in piles some places will be more packed than others and there will likely be a difference in the density, while if laid on in layers this will be avoided. Each layer should be harrowed, or better yet, disked and packed before the next one is laid down. In this way a good roadbed is secured from the first, while if the soil is just dumped on the road to be leveled and packed by the traffic over the road a good roadbed will never be secured. The best tool for keeping the road well crowned and the surface smooth is the split-log drag. This tool should be used soon after a rain. The soil is then loose and easily moved. The drag moves but small amounts of soil and smears it on the roadbed in thin layers which is just what is wanted. It cuts off any projections and fills up any low places. Where there is standing water the roadbed should be kept at least a foot above the water surface and eighteen inches is better. The nature of the soil and the length of time that the water stands along the road will to a degree determine how high the roadbed must be above the water. In dry-farming territory it is important to keep the weeds away from the roadbed and to keep the roadbed well crowned and smooth.

The Split-Log Drag.

The split-log drag has contributed more toward the economic maintenance of the public highways than any implement of modern usage. It does not require special acts of the legislature, bond issues or expensive educational campaigns to make it available as usually precedes construction work. A drag can be built or purchased for \$20 and is easily operated by anyone who can drive a team.

Promote Rural Prosperity.

It is now generally admitted that good roads promote rural prosperity, even if they do cut down the profits of the men who hired out teams to pull motor cars out of mud holes.

Stunted Pigs.

Smaller pigs are kept stunted if left to run with the larger, stronger ones by being crowded from the feeding trough.

Worth \$3 a Ton.

Wheat straw alone is worth \$3 per ton as fertilizer. Its value is much more when used for bedding the cow.

Legumes and Lime.

The promotion of the growth of legumes is the one effect which, above all others, justifies the use of lime.

WAS MISERABLE COULDN'T STAND

Testifies She Was Restored to Health by Lydia E. Pinkham's Vegetable Compound.

Lackawanna, N. Y.—"After my first child was born I felt very miserable and could not stand on my feet. My sister-in-law wished me to try Lydia E. Pinkham's Vegetable Compound and my nerves became firm, appetite good, step elastic, and I lost that weak, tired feeling. That was six years ago and I have had three fine healthy children since. For female troubles I always take Lydia E. Pinkham's Vegetable Compound and it works like a charm. I do all my own work."—Mrs. A. F. KREAMER, 1574 Electric Avenue, Lackawanna, N. Y.

The success of Lydia E. Pinkham's Vegetable Compound, made from roots and herbs, is unparalleled. It may be used with perfect confidence by women who suffer from displacements, inflammation, ulceration, tumors, irregularities, periodic pains, backache, bearing-down feeling, flatulency, indigestion, dizziness, or nervous prostration. Lydia E. Pinkham's Vegetable Compound is the standard remedy for female ills.

Women who suffer from those distressing ills peculiar to their sex should be convinced of the ability of Lydia E. Pinkham's Vegetable Compound to restore their health by the many genuine and truthful testimonials we are constantly publishing in the newspapers.

If you want special advice write to Lydia E. Pinkham Medicine Co. (Confidential), Lynn, Mass. Your letter will be opened, read and answered by a woman and held in strict confidence.

Hardly Complimentary.

A New England housewife one afternoon received a call from a hobo to whom that morning she had given some doughnuts.

The knight of the road doffed his ragged headpiece and with great civility addressed her thus:

"Madam, this morning you gave me three doughnuts. Would it be asking too much to request a fourth?"

"I'll be glad to give you another," said the woman, as she prepared to wrap one in a newspaper. "So you like my doughnuts, do you?"

"It isn't that, madam," explained the hobo. "You see, some friends of mine down in the meadow wish to have a game of quoits."

Over Persuaded.

"Can't I persuade you to sign the pledge?"

"I s'pose so," replied Uncle Bill Bottletop. "The only trouble is that I'm gettin' so easy persuaded that every time I sign the pledge some fellow comes along and persuades me to take a drink."

Too Noisy.

"You have to get a new night watchman, boss."

"Why, what's the matter, Bill, I thought you liked the job?"

"Oh, I did at first, but this street's got so noisy I can't sleep at wink at night now."

Hard to Tell.

Gibbs—I tell you, no man can fool my wife.

Dibbs—Then how did you get her?

COULD RECOGNIZE NUISANCE

Judge's Retort Set Courtroom Laughing and Gave Lawyer Something to Think About.

City Magistrate Krotel, who is noted for a characteristic brand of dry humor, occasionally manifested in utterances from the bench, turned a cruel shaft loose upon a pestiferous young attorney this week, to the supreme enjoyment of a crowded courtroom, says the New York correspondent of the Cincinnati Times-Star. The young attorney was prosecuting in a case where the maintaining of a nuisance was alleged. The rulings of Magistrate Krotel did not please him. His numerous objections became persistently controversial. "If your honor please," he said, "I would not presume to instruct the honorable court in a question of law, but I am impelled to observe that I doubt—in the present case only, of course—if the court properly conceives of what constitutes a nuisance."

"You are mistaken, sir," was the response from the bench. "This court has never had a more clear or exemplary idea of what constitutes a nuisance than in the present case at the present time. And for that, in a measurable way, the court thanks you, sir."

Few men are able to appreciate getting the short end of a joke.

When all others fail to please Try Denison's Coffee.

Time magnifies our good deeds and diminishes most of our naughty ones.

The way of a wise man is to let a woman have her own way.

For genuine comfort and lasting pleasure use Red Cross Ball Blue on wash day. All good grocers. Adv.

His View.

Optimist—What do you consider the greatest thing that ever happened? Pessimist—It hasn't—Puck.

A Small Percentage.

City Man—How many servants do you keep? Suburbanite—About one out of twelve.

He Had Painted Too.

"My dear fellow," said the artist, "you can't imagine how much work there was in painting that picture."

"Oh, yes, I can," said the young country lad, "my father made me paint the barn one summer."

His Choice.

They were gathering apples together—the little blonde and the big athlete.

"Are you fond of golden sweets?" she asked, in a summer vacation way.

"Oh, yes, in the summer time," he replied, but he quickly added: "My strong preference is for fall pippins."

Saffron Beam.

"I fear that you are inclined to look on your fellow man with a jaundiced eye," remarked the altruist.

"It isn't my fault," said the pessimist. "My fellow man shows on an average such a broad yellow streak that the reflection has affected my vision."

No Need to Worry.

"Say, do you know I was fearfully embarrassed last night when you introduced me to Mrs. Rich. Do you suppose she noticed my clothes needed pressing?"

"I'm sure she didn't. She never notices anything unless it's out of the ordinary."

Feel All Used Up?

Does your back ache constantly? Do you have sharp twinges when stooping or lifting? Do you feel all used up—as if you could just go no further? Kidney weakness brings great discomfort. What with backache, headache, dizziness and urinary disturbances it is no wonder one feels all used up. Doan's Kidney Pills have cured thousands of just such cases. It's the best recommended special kidney remedy.

A Nebraska Case

"Every Picture Tells a Story." Mrs. Robert Clark, Chestnut St., North Bend, Neb., says: "I suffered almost constantly from a dull, heavy pain in my shoulders, along with a tired feeling. I had headaches and dizzy spells and was afraid to walk across the floor. I felt restless and nervous and my kidneys were in bad shape. Doan's Kidney Pills gave me the first relief I had received and continued use restored me to good health."

Get Doan's at Any Store, 50c a Box
DOAN'S KIDNEY PILLS
FOSTER-MILBURN CO., BUFFALO, N. Y.

The Army of Constipation

Is Growing Smaller Every Day. CARTER'S LITTLE LIVER PILLS are responsible—they not only give relief—they permanently cure Constipation. Millions use them for Biliousness, Indigestion, Sick Headache, Sallow Skin. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature.

W. N. U., OMAHA, NO. 40-1915.

Where It Was Appropriate.

Lord Kitchener, it is said, is very pleased with the result of the present temperance move.

"We are all temperate now," said his lordship recently.

"To get drunk is an unheard-of thing among gentlemen. If a gentleman ever gets drunk nowadays he has, you may be sure, a remarkable excuse to offer." To illustrate his point Lord Kitchener told this story:

A major, after a fancy dress ball at Simla, came home drunk and his shocked wife said to him:

"Aren't you ashamed to return from the ball in that condition?"

"Don't blame me, my dear," said the major; "you must remember that the character I assumed was that of a sponge."

Cross Criticism.

"Hubby, dear, is my gown comme il faut?" asked Mrs. Gadders.

"How do I know?" growled Mr. Gadders. "If you mean is it the kind of dress it ought to be against the law to wear, why, yes."

Saving 'Em.

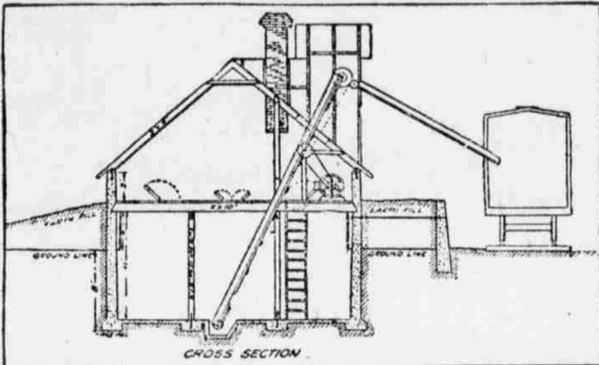
"The old saying about true love never runs smooth wasn't true in their case. They never had a single quarrel during their engagement."

"No, they were saving them all up for their honeymoon."

After all, the chief difference between men and roosters is that men do their crowing during the day.

Maid of honor are those who do not try to flirt with the bridegroom.

CONSTRUCTION OF A POTATO STOREHOUSE



Basement Type of Storehouse With Elevator for Loading.

In the construction of a potato storehouse or cellar there needs to be careful consideration of temperature, ventilation, light, drainage, convenience, durability and cost. The best temperature is just above freezing or about 34 degrees. Well-insulated walls, a properly drained location and ventilation are essential in maintaining an even temperature. Darkness is demanded for table stock because greening by light develops the acrid taste characteristic of exposed potato tissue. On the other hand, light prevents disease, toughens the skins and is a check to excessive sprouting. Cellars should have light in the spring without warmth. A knoll is the best place to locate a potato cellar, as it can be placed well into the earth and still have good drainage. Each square foot of floor space will carry 200 pounds of potatoes piled five feet deep. A cellar 50 by 100 feet will hold nearly 20,000 bushels. The plan shows construction of house to hold 10,000 bushels when filled ten feet deep.—Orange Judd Farmer.

USING HEN MANURE AND ASHES IS BAD

Ohio Experiment Station Gives Reply to Question as to Fertilization of Soil.

The Ohio experiment station has received frequent inquiries as to how to use ashes and hen manure to the best advantage in fertilizing the soil. The best answer the station gives to the question is: Don't. Ashes are about one-third lime, but no material containing lime, in the form in which it is contained in ashes, should be mixed with moist manure, as the lime will cause the liberation of a considerable part of the nitrogen in the manure and it will escape as ammonia gas. Ashes and dry hen manure may be mixed immediately before applying the manure, as the ammonia will mostly be absorbed and held by the soil. The proper material to mix with manure is acid phosphate, as this serves to fix the ammonia instead of liberating it and also re-enforces the manure with phosphorus, which is the element most needed by most soils similar to that in Ohio. Acid phosphate sprinkled over the dropping boards will reduce the loss of ammonia and increase the effectiveness of the manure. A mixture of 250 pounds dry hen manure, 150 pounds acid phosphate and 100 pounds unbleached hardwood ashes will contain practically the same quantities of ammonia, phosphoric acid and potash as would be carried in 300 pounds of 2-10-2 fertilizer. By using a sand sieve and a wooden pestle to pulverize the manure such a mixture may be applied with the ordinary fertilizer drill, and if the ashes are not added until within a few days of the application there

will be no appreciable loss of ammonia.

Coal ashes have practically no fertilizing value, but may sometimes be used with advantage in loosening a compact clay soil or as a mulch around small fruits in the garden.

TURN YOUNG LAMBS INTO CORN FIELDS

This Should Be Done While Weeds Are Young and Tender—They Do No Damage.

(By R. G. WEATHERSTONE.)
It is good practice to turn the lambs into the cornfield as soon as the corn is matured enough so it cannot be hurt by them. They should of course be turned in while the weeds are yet young and tender. They will then crop them down and in doing so will render the most munificent service to the field. They will also crop off the lower leaves of the corn and in this way will obtain much food without probably doing any harm to the corn. The shade furnished by the corn when the weather is unusually hot will be good for the lambs.

When lambs newly weaned are turned into such fields it may be necessary to supplement the food given to them. It probably will be necessary. The weeds grow much in the shade, and consequently will be more insipid than if they grow in bright sunshine. Even when newly weaned lambs are turned in to graze on good pasture, they should as a rule be given a supplement of grain. When they pasture amid corn, if thus fed, the lambs will not only be directly benefited but the fertility added to the land, or some of it, will be proportionately helpful.

"DEAR MOTHER:— A good thing to send would be a package of Grape-Nuts, or something of that kind that is not expensive or heavy and is of good food value. Your son, WILL."

From a Canadian soldier at the battle front; reprinted from the Renfrew (Ont.) Journal.

Wherever hardships are endured, wherever big deeds are accomplished, there a food is demanded that provides maximum of value in brain- and body-building material with minimum of bulk.

In this respect no other food equals

Grape-Nuts

In building the Panama Canal thousands of brain workers as well as brawn workers kept themselves fit and in trim by eating Grape-Nuts dry from the package.

Not only does Grape-Nuts supply all the brain- and bone-building, nerve- and muscle-making elements of choicest wheat but also the rich nutriment of malted barley.

Grape-Nuts is highly concentrated nourishment in compact form—always ready, crisp and delicious—thoroughly baked and packaged to keep indefinitely, anywhere.

Wherever time is precious and sound nourishment vital you'll find Grape-Nuts.

"There's a Reason"

Sold by Grocers everywhere.