

HE WHO PLANTS A TREE



ONE OF THE LYNCHBURG TREES

COULD "Johnny Applesseed" find his way to thousands of our schools this fall he would see something that would well repay him for all the weary miles he walked planting apple seeds years ago. In many states Arbor day comes this fall, but the school children of the country promise to make almost every day Arbor day this year and during the spring of 1920. Hundreds of towns and cities have been entered on the national honor roll being compiled by the American Forestry association at Washington. The association hopes to see every young American citizen become a "Johnny Applesseed, Jr."

You remember the story of Johnny Applesseed, as they called him, who, many years ago, went up and down the land planting apple-tree seeds? That was not his real name, but that is what he came to be called. Of course a lot of people laughed at him, for there were so many trees then. Many thought him crazed. But now his idea is taken to be a good one. For many things have happened since the day of Johnny Applesseed. The world war has set our people thinking about many things. One of these things has been the way lumber is being consumed. Then, too, there is the high cost of living that agitates everyone. In many places the planting of nut and fruit trees is advocated, and a campaign is on to have every victory gardener plant a nut or fruit tree in his garden or back yard. Another fine opportunity for planting is memorial trees along the motor highways and good roads that are in the process of building. To these calls of the American Forestry association the people of the country are responding in hearty fashion. So to the school children of the country comes a great chance to enter actively into the study of outdoor life through the planting of trees. The American Forestry association will send any one a free planting day program and instructions how to plant a tree.

Coming Arbor days are: Georgia, first Friday in December; Hawaii, first Friday in November; Colorado, Connecticut, Delaware, Florida, Illinois, Iowa, Kansas, Kentucky, Maine, Michigan, Minnesota, Nevada, New Hampshire, New Mexico, North Dakota, Ohio, Pennsylvania, South Dakota, Vermont, Virginia, Wisconsin, Washington and Wyoming all have days set aside by proclamation of the governor; North Carolina, Friday after November 1; Porto Rico, last Friday in November; South Carolina, third Friday in November; Tennessee, November date set by county school superintendents. With this day before us, Charles Lathrop Pack, president of the American Forestry association, sends this message to the school children of the United States:

"No finer memorial can be erected by any school or class than by the planting of a tree. Every pupil will have a close and intimate interest in that tree and therefore the school after he leaves. I need not attempt to picture what that tree or avenue of trees will mean to the class of 1920 when it comes back to the old school for the class reunion in 1940. A space on the campus or a walk near the town can be lined with trees, one for each member of the class. The American Forestry association is registering all memorial trees in a national honor roll and urges that all tree planting be reported that it may keep its rolls complete."

What Is Best to Plant.

Last spring and fall hundreds of trees were planted, but much bigger plans have been made for tree planting this year and next. If you are not planting fruit or nut trees you will want to study what best to plant and here is a list of such trees divided for you by states:

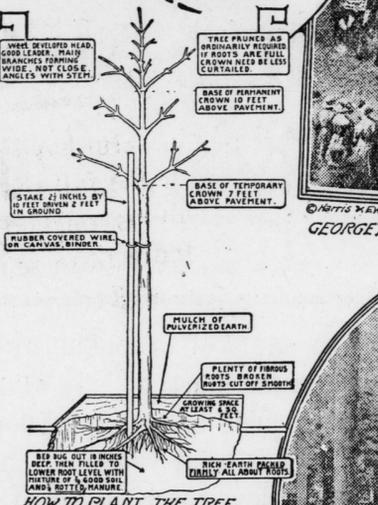
New England states, New York, Pennsylvania, New Jersey, Ohio, West Virginia, Kentucky, Indiana, Michigan, Illinois, Missouri and Iowa: Hardwood—Sugar maple, Norway maple, scarlet maple, green ash, white ash, American white elm, red oak, white oak, pin oak, American linden, scarlet oak, Evergreen—White spruce, Colorado blue spruce, white pine, Scotch pine, balsam pine, hemlock, arbor vitae.

Delaware, Maryland, District of Columbia, Virginia, North Carolina, South Carolina, Georgia, Tennessee, Florida, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma and Texas: Hardwood—Tulip, sycamore, pin oak, white oak, scarlet oak, black oak, red oak, white ash, bald cypress, Norway maple, scarlet maple, red elm, American white elm, Kentucky coffee tree, American linden, red gum, black gum, hackberry, willow. Evergreen—White pine, longleaf pine, magnolia, live oak, cedar of Lebanon, American holly.

Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Kansas, Colorado, Wyoming, Montana and Idaho: Hardwood—Bur oak, linden, Norway maple, green ash, wild cherry, larch, American elm, black walnut, hackberry, honey locust, black locust (less desirable, cottonwood, box elder). Evergreen—Scotch pine, Austrian pine, white pine, Norway spruce, Colorado blue spruce, white spruce, red cedar, arbor vitae.

New Mexico, Arizona, Utah and Nevada: Hardwood—Hackberry, honey locust, green ash, American elm, black locust, bur oak, valley cottonwood, mountain cottonwood, mountain ash, box elder, Evergreen—Arbor vitae, deodar cedar, box, euonymus.

California, Oregon and Washington (coast region): Hardwood—Large-leaved maple, European linden, sycamore, weeping willow. Evergreen—Deodar cedar, Monterey cypress, Monterey pine. California, Oregon and Washington (Columbia



WHITMAN MEMORIAL TREE AT CAMDEN, N. J.

basin): Hardwood—Norway maple, European linden, sycamore, green ash, silver poplar, Russian poplar, white willow. Evergreen—Lawson cypress, bigtree.

On the planting of a tree you will want to proceed with the greatest care. For the best results, organize a tree-planting program in your town. If there is no shade-tree commission or city forester, interest yourself in the proposition. In selecting trees for street planting the following qualities should be considered in about the order named: Form, hardiness or adaptability, rapidity of growth, shade protection, neatness and beauty. If there is any doubt on the question it is advisable to consult the state forest commission, the local forester or some other authority who can tell what varieties are best for a given locality.

No general rules, of course, can be given, but in a larger part of the eastern United States it will be found that for narrow streets the red maple, red gum or ginkgo can be recommended; for wider streets, Norway maple, basswood, horse chestnut or pin oak; and for wide avenues, white elm, white oak, red oak and tulip poplar.

Qualities Needed in Street Trees.

Street trees should have hardiness and adaptability. They should be vigorous, be able to recover from mechanical injuries and be as resistant as possible against insect attack and disease. It is not desirable to have trees which cast too much shade, particularly on narrow streets. Houses and sidewalks need sun, even in summer. Deciduous, broadleaved trees are most satisfactory. Again, the question of neatness should be considered; and the trees which will break up the pavement, such as silver maples, or those which cover the pavement with their bloom in the spring, such as cottonwoods and poplars, should be avoided. Black locust should not be planted because it is likely to be destroyed by the borer worm. Beech is a slow grower and casts too dense a shade for any street.

Trees planted along a street should be of the same kind, the same size and uniformly spaced. On narrow streets trees planted every 40 feet apart, and alternated on opposite sides of the street, will be found sufficiently close. On wider streets they should be from 40 to 60 feet, or even farther apart, the distance being determined partly by the size which the tree is likely to attain and by other habits.

Every tree should have at least six square feet of earth above its roots. It is more important that there be plenty of space where the pavement and roadway are paved with concrete than if brick or other loose-jointed materials are used.

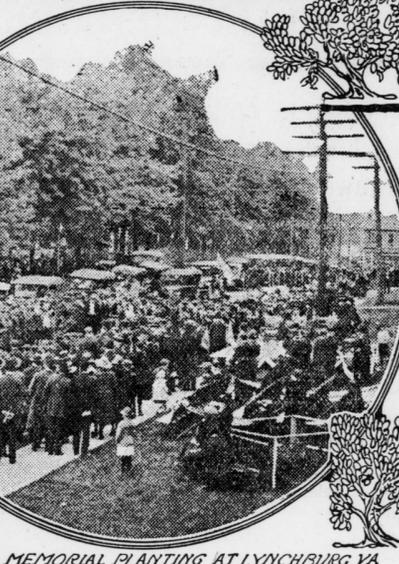
Keep the Roots Moist.

In planting a tree, move as many of the roots as possible. A cloudy day is better for transplanting a tree than a bright, sunny one, because a bright sun quickly exhausts the stored-up moisture. An important point is in regard to packing the earth around the roots. They should have close contact with the ground. To do this, fill in around the roots with finely pulverized earth, working it under and around the roots by hand and compacting it. If the earth is wetted down as it is put in, it will make a much better contact.

Many trees which are unsuited for one reason or another for a sidewalk are most attractive and ornamental in a park or on a lawn. The beech, for instance, which has no value for street planting,



GEORGETOWN UNIVERSITY MEMORIAL PLANTING



MEMORIAL PLANTING AT LYNCHBURG, VA.

makes a beautiful lawn tree; either the native or the European species may be planted. The sour or black gum grows under most adverse circumstances, but apparently is not well suited for street planting, although as an ornamental tree it deserves a place.

Purchase trees from a reliable nursery; beware of tree peddlers. Choose healthy, well-formed trees. Trees two or three inches in diameter and ten or twelve feet high are large enough for any purpose. Where smaller trees can be used, they generally give better results, because the root system is less disturbed by transplanting. Do not expose the roots to the sun, wind or frost. Keep wet blankets or canvas wrapped tightly about the roots until the tree is ready to be set out; then plant with the least possible delay.

Trim off any broken, torn or injured roots. Use a sharp pruning knife and make a clean, smooth cut. Remove all broken branches and cut back one-half to four-fifths of the previous year's branch growth. The size of the top must be proportioned to the size of the root system or the roots will be unable to supply sufficient water and food for satisfactory growth. Forest-grown trees have poor root systems and must be severely pruned by removing the greater part of the side branches. Never cut back the main stem or leader.

Dig Wide, Deep Holes.

Dig wide, deep holes. Trees become root-bound and make poor growth or die if the roots are cramped or twisted. The holes should be a foot or two wider and deeper than is needed to accommodate the roots. For street trees, the hole should be about twice as large as the root system actually requires. Partly fill the hole with rich loam and pack it down well. If poor soil must be used, mix with well-rotted manure. Green or partly decomposed manure will burn the roots and must not be used.

Do not plant the tree too deep. The upper roots should lie only an inch or two deeper in the soil than they grew originally. Spread out the roots in their natural position and work soil around them, a little at a time, compacting it firmly with the fingers or a pointed stick. Occasionally tamp it with the foot so that no air spaces remain. Also see that the stem of the tree is kept perfectly vertical. Now water the soil generously. The final inch or two of soil should be left fine and loose over the top of the hole to act as a mulch.

After planting, the tree should be staked to prevent it from swaying in the wind and growing crooked. The stake should be long enough to support the trunk for two-thirds the height of the tree. Trees exposed to traffic, horses and children should be protected by suitable wooden or metal guards. In case any injury to the young tree results, apply tree surgery methods at once.

Shallow cultivation of the soil for three feet around the tree is beneficial during the first few years of growth. Loosen the top soil with a spade or hoe several times during the season to keep down weeds and grass. During the hot, dry summer months watering should be done not oftener than twice a week.

Tree planting should form a permanent part of the improvement program in every city and town in the United States. It should not be undertaken in a temporary or haphazard manner; but it should receive the constant thought and attention of those who are interested in making the community attractive and at the same time in adding to the future timber resources of the United States. It must be remembered that what is done in one city or two serves as an inspiration to others.

Let us keep in mind a thought of future so well expressed in the poem by Lucy Larcom, who said:

"He who plants a tree,
He plants love.
Tents of coolness spreading out above,
Wayfarers he may not live to see."

So in honoring loved ones let us of the present look to the future and by memorial tree planting make this a better country in which to live, which, after all, is all the memorial those loved ones ask. Yet what a memorial, if it be accomplished!

TREAT OATS AND WHEAT FOR SMUT

Reports Show That It Pays to Use Formaldehyde at Time of Planting Crops.

WORK OF DIFFERENT AGENTS

Practically None of Fields Given Treatment Showed Any Signs of Disease—Farmers of Porter County Lost \$140,000.

(Prepared by the United States Department of Agriculture.)

Evidence that it pays to treat wheat and oats at the time of planting with formaldehyde to prevent smut is given in reports of a number of demonstrations conducted by Indiana county agents. Fields of oats in DuBois county, sown with seed treated with formaldehyde for smut as recommended by the United States department of agriculture and the State Agricultural college, showed practically none of the disease, while fields planted from seed not treated contained about 15 per cent smut, according to the local county agent's report.

Work in Warren County.

As a result of the demonstration conducted by the county agent in Warren county it was found that a plot of oats planted with untreated seed showed 33 per cent smut, while another plot in the same field planted with treated seed was free from the disease. Other oat fields throughout the county that were not treated were infested with the disease in amounts varying from 7 to 35 per cent.

As the result of the damage done by wheat smut in Porter county, farmers will lose about \$140,000 on the crop, according to statistics compiled by the county agent. In checking up the damage done by smut the agent found that the disease had caused 7 per cent decrease in the county's yield. About two-thirds of the farmers of the county treated their seed and effected a saving of nearly \$100,000.

Smut in Steuben County.

The county agent of Steuben county, in company with a representative of the United States department of agriculture, found one field of wheat with as much as 84 per cent of smutted heads, and considerably more than 50



Protecting Seed Wheat Against Smut by Formaldehyde Treatment.

per cent of the crop was lost. Other fields showed as high as 40 to 50 per cent of scab. Where wheat had been sown in corn stubble ground the scab was much worse than where it followed other crops. The agent took advantage of the gatherings of farmers while they were thrashing to show how smut and other cereal diseases were causing losses and to demonstrate methods of seed treatment.

PASTURE FOR STOCK IN FALL

Highly Important to Keep Animals in Good Condition Through Fall and Winter.

One of the essential factors in keeping live stock in good condition through the fall and early winter, which is highly important, is good fall pasture, says Andrew Boss, vice director of the Minnesota experiment station. Nothing excels the grasses for pasture, though mixtures of the grasses and clover are better than either grasses or clover alone, and furnish the best kind of feed for all kinds of stock.

Where an abundance of cultivated grasses can be obtained for pasturing, no further attention need be given the subject. Meadow aftermath containing clover, or timothy and clover, makes good fall feed. Clover growing in the stubble field is also an excellent fall pasture. Pasturing stock on clover often enables the farmer to pick up some of the wasted grain, and the droppings of the live stock are beneficial to the land.

WOOD ASHES ARE VALUABLE

As They Have Peculiar Fertilizing Value They Should Be Carefully Stored Away.

The farmer who burns wood for heating or cooking should carefully store the ashes and not permit them to leach, as they have a peculiar fertilizing value. They not only contain potash and phosphoric acid in appreciable amounts, but also contain magnesia and lime, and when applied to the land they also act indirectly to increase the available nitrogen content of the organic matter in the soil.

GOOD STALLIONS TO IMPROVE COLT CROP

Harvest Aid, Animal of Highest Type, Is Purchased.

Work at New Breeding Station at Buffalo, Wyo., Carried on by Government in Co-operation With State Officials.

(Prepared by the United States Department of Agriculture.)

A standard-bred stallion, Harvest Aid, 63808, an animal of the very highest breeding type, has recently been purchased by the United States department of agriculture and placed at the government's new horse-breeding station at Buffalo, Wyo. Work at this station is being carried on in co-operation with the state of Wyoming, the object being to develop utility horses especially adapted to western range and farm conditions. Harvest Aid is by the champion trotting stallion The Harvester, and his dam is Santos Maid, a mare which holds the trotting record of 2:08 1/4, and a daughter of



A Sire That Insures an Improved Colt Crop.

Peter the Great, the leading sire of speed in America. Harvest Aid is an animal of great stamina, good size and conformation, and while he was selected on his merits as an individual, the horsemen of the department say they are extremely fortunate in getting such a well-bred animal. It is not the purpose at the horse-breeding station to develop speed animals, but it is well understood that a good stallion from a family noted for its speed is highly desirable for the production of active utility horses.

MAKE MONEY RAISING BARLEY

Experiments Show It Will Surpass Corn as Ration for Fattening Hogs If Properly Fed.

Experiments at the Wisconsin experiment station show that barley will surpass corn as a ration for fattening hogs if it is properly fed. Twelve lots of pigs were fed, using with some a corn ration, while the others were given barley. The return for each pig over the cost of feed was \$14.38 for the barley-fed pigs, and \$12.38 for the corn-fed porkers.

One of the most interesting facts brought out was the value of a barley and whey combination, which netted a handsome return, and the gains made with this ration were very rapid.

If you are in a region which is suited for the production of barley, or if you have been using it as a nurse crop for alfalfa, do not be discouraged by the prospect of a lower price, due to the curtailing of the use of barley in the brewing industry. Perhaps it will pay you more than ever as a feed for your hogs and your other live stock.

LIMESTONE INCREASES YIELD

Demonstrations Carried On for Two Years in Indiana to Show Value of Ground Material.

(Prepared by the United States Department of Agriculture.)

For two years the county agent in Jefferson county, Ind., has been carrying on demonstrations to show the value of ground limestone on acid soils. In one demonstration this year an average of 25 1/2 bushels of wheat were produced to the acre. Neighbors who helped thrash this wheat, and who have land that is just as good, except that they did not make applications of ground limestone, obtained only 15 bushels to the acre. This high yield is hardly an exception, reports the agent, for similar results were obtained by other farmers in the section who used limestone.

ADVANTAGES OF SAME BREED

Better Prices Secured From Uniform Product and Breeding Stock Secured Near Home.

(Prepared by the United States Department of Agriculture.)

There are many advantages to be gained when the stock raisers of one community raise the same breed. Better prices may be secured from the sale of a uniform product and suitable breeding stock can be secured near home.

FARMER WHO AIDS FERTILITY

Dairyman Who Studies Feed for Land Is Not Soil Robber—Something Must Be Put Back.

(Prepared by the United States Department of Agriculture.)

The dairy farmer not only studies how to feed his cow, but how to feed his land. He is not a soil robber, as he realizes that the farmer who reduces the fertility of his land robs without reason, since he steals from himself.