are then more favorable. In propagating plants by cutting, it is found that rooting is most successful when the bed in which the cuttings are inserted is 15 or 20 degrees warmer than the atmosphere surrounding them. The heated soil encourages the formation of roots, while the cool temperature prevents bud growths. When these conditions are reversed the cuttings will grow for a time without forming roots.

It is found that during the month of October in this locality the soil averages several degrees warmer than the atmosphere. This gives a kind of natural hot-bed into which we place a newly removed tree, the formation of young roots commences at once, and in a few weeks a good system of roots is established, enabling the tree to stand the vicissitudes of winter, and make an early vigorous start the following spring.

If planting is delayed until spring these physical conditions of soil and atmosphere are to a certain extent reversed; the soil is then cold and slowly accumulates heat, while the air rapidly increases in warmth. Trees planted at this time will have the buds excited to growth, and leaves will be formed in advance of the roots. These extract sap from the branches and stem of the tree, which, as yet, has no active roots to supply this demand. If the weather proves to be dry and warm, the evaporation will either destroy the tree or greatly check its growth. This is the reason why spring-planted trees occasionally come out into leaf apparently vigorous and healthy, but suddenly wither and die under the influence of dry weather.

From the above it will appear evident that fall planting should be performed as soon as the leaves drop. In fact it is most successful when the leaves are stripped from the trees, not later than the middle of October, and planting is done at once If delayed beyond the middle of November in this locality, success will be less certain, and none of the advantages of fall planting secured. Many failures occur by thus delaying the work, and fall planting is denounced as wrong in practice, whereas it is not fall but winter planting that in such cases proves thus disastrous.

The Farmer's Library,

As winter approaches and the evenings lengthen the progressive agriculturist will find more time for reading, and the first question presenting itself to his mind is what shall I read. If his desire is, as it should be, to lay in a stock of information that will be of practical use, it will be necessary for him to read more than the local newspapers. One or more of the leading Agricultural Journals should always receive his careful perusal, but if he has a small library of standard books, treating on the various branches of agriculture, he has a mine of wealth from which, by systematic and thoughtful reading, he may draw those scientific principles which are to guide him in his every day work.

Such a library may be gradually established by adding from time to time, those books as are thought to be most useful.

What constitute the most useful books will depend upon what particular branch of agriculture the reader is pursuing. From the following list may be selected what might form the basis of a good agricultural library:

First Principle of agriculture, Shaw and Mills.
Science in Farming, Thompson.
Chemistry of the Farm, Warrington.
How Crops Grow, Johnson—latest edition.
How Crops Feed, Johnson—latest edition.
Agriculture in Some of its Relations with Chemistry—two vols. Storer.
Manual of Cattle Feeding, Armsby
Feeding Animals, Stewart.
Stock Breeding, Miles.
Cattle Breeding, Warfield.
Horse Breeding, Sanders.
Breeds of Live Stock, Sanders.
The Hog in America, Shepard.
Harris on the Pig.
The Practical Shepherd, Randall.
Cattle and their Diseases, Murray.
Veterinary Adviser, Law.
American Dairying, Arnold.
Dairyman's Manual, Stewart.
Practical Poultry Keeper, Wright.
Gardening for Profit, Henderson.
Fruit Gardening, Barry.
Insects Injurious to Vegetation, Harris.
Insects Injurious to Fruit, Saunders—latest edition.
Manual of the Apiary, Cook.

The youngest College Professor in the United States, invested with a full Professorship, is Arthur F. Abernathy, Professor of Modern languages, and adjunct Professor of Ancient languages in Rutherford College, N. C. He is not yet eighteen years of age.