
TOBACCO

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Tobacco is one of the few really American plants. When the Americas were discovered the plant was being used by the Indians. The Spanish introduced tobacco cultivation into Europe, but the English introduced the practice of smoking. Because of the rapid spread of this practice there was created in Europe a large market for the product. Thus, soon after the colony of Virginia was founded, tobacco production was started on a commercial scale. The first exports of tobacco from this colony were in 1618 and amounted to about 20,000 pounds. By 1700 the exports had increased to about 20,000,000 pounds.

Today there are many varieties of the tobacco plant produced in many parts of the world. In the United States the eight principal types are dark fire-cured export, White Burley, bright flue-cured, cigar leaf, dark air-cured manufacturing, Maryland and eastern Ohio export, Virginia sun-cured, and perique. Each type has some use for which it is better suited than any of the other types. The first three named have the largest production and are the most widely used.

Under suitable climatic conditions, the type of tobacco produced is determined mainly by the character of the soil. It should be well drained and contain a large percentage of humus. Clay soils, retentive of moisture, as a rule yield heavy crops of tobacco which cure to a dark brown or red color. The color of the soil seems to exert a great, but not always a controlling, influence in determining the color of the product. Very rich soils of any color will produce a heavy, gummy leaf if properly fertilized and planted with a suitable variety. The best tobacco requires strong, rich soil, not necessarily deep, but sufficient in its mineral content. River bottoms subject to overflow rarely produce a good quality of tobacco. Too much vegetable matter imperfectly decomposed makes a large, bony, harsh, leaf.

The first step to be taken in the cultivation of tobacco, and one that demands considerable care and attention, is the preparation and sowing of the seed beds. The land for this purpose should have a slight southern exposure, if possible, so that it will get the benefit of the warm rays of the sun in early spring. This will hasten the growth of the plants and make it possible to transplant them from one to two weeks earlier than would be possible if the seed bed was made on a northern exposure. Virgin soils are to be preferred for this purpose, though many planters use a portion of their gardens or grown-up fence rows near the field that is to be planted. In either case the land must be sterilized by either burning or steam. Pan firing is common as it enables the farmer to economize on fuel. When the firing is complete the bed must be thoroughly worked until it is pulverized. The seeds are mixed with ashes, fertilizer, or bone meal, and sown over

the bed at the rate of one tablespoon full for a hundred square yards. With seeds of good quality a half ounce is sufficient for a bed of about sixty square yards and will yield about 40,000 plants for transplanting.

After the seeds have been sown the beds may then be tramped with the feet so as to give a firmness to the soil on top and at the same time press the seed beneath the surface. Some tobacco growers brush the bed lightly with a leafy branch to cover the seeds. A trench should be dug around the bed so as to prevent the water from flowing over it during a heavy rain. Boards or logs are put around the bed and over these is stretched a tobacco canvas covering. The covering serves the double purpose of hastening the plant growth by holding in the heat, and of protecting the plants from insect enemies. It usually requires from two to two and one-half months from the time of sowing for the plants to be large enough to bear transplanting to the field. The seeds may be sown as soon after the first of the year as the ground becomes dry. The best time for transplanting is from the middle of April to the middle of May.

The preparation of the land for the growing of tobacco need not differ from the preparation of the land for the growing of cabbage. The land must be, first of all, liberally supplied with fertilizer. In the application of commercial fertilizers, only those should be selected that have a large content of phosphorus, for tobacco draws more heavily upon this element of fertility than upon any other. The absence of phosphate reduces the crop upon all soils. Common wood ash will supply the potash in the compounding of domestic fertilizers.

Nitrogen fertilizers will be found of great advantage to the tobacco plant. Unlike the leguminous plants, tobacco is not able to extract nitrogen from the atmosphere, yet nitrogen is necessary for its healthy growth. All commercial fertilizers and nitrogen salts are applied in the hill or furrow just before the tobacco is transplanted.

The care of the crop is much the same as that given to corn. Grass and weeds must be carefully eradicated. Nothing injures the quality of tobacco more than the presence of other plants during late stages of its growth. Three or four plowings and one working with the hoe are usually sufficient.

When the plant begins to show the seed bud it should be topped, leaving about ten or twelve leaves to the plant. This number may be reduced as the season advances. The lower leaves should be "primed off" to the height of six inches. After the plants have been topped the critical period in the growth and culture begins. When the seed bud has been removed the plant makes a vigorous effort to reproduce flowers and seed, and every bud at the axils of the leaves starts to produce a subsidiary plant, each one of which, if left undisturbed, will blossom and mature seed. The subsidiary plants are called suckers. They must be removed every week; otherwise the leaves of the plant will be dwarfed and robbed of all substance and good qualities.

In most cases, it requires from six to ten weeks after the tobacco has been topped for it to mature ready for harvesting. The time depends greatly upon the character of the soil. Upon new lands the plant will ripen much quicker. Upon southern exposures, even though the land be old, the period of maturity is shortened. Harvesting usually begins about the middle of August. The maturity of a plant is indicated by the drooping of the leaves, by their crispness, by yellowish spots, by the oily granulated appearance of the leaves and by the gummy substance which they secrete. The maximum weight is reached when the plant is fully matured. If the harvest is deferred too long brown spots will begin to appear on the leaves. About one-half the plants in a field will ripen at the same time if a good stand is secured at the start.

During the harvest the ripened stalks are cut by splitting from the top to the junction of the lower leaves. The stalks are severed just below the

lowest leaf. The plant is then inverted and left until it is wilted, but care must be taken that it does not remain in the sun long enough to be dried or burned. When this occurs the quality of the tobacco is greatly injured.

From five to eight plants, after being wilted, are usually put upon a tobacco stick. When carried to the curing barn, these sticks, with their tobacco plants, are arranged upon tier poles and put about eight inches apart. When the barn has been filled the tobacco is allowed to remain hanging for three or four days without any other attention. The curing process from this point will differ for each type of tobacco. The dark-fired is cured with smoke, the burley with air, and the flue-cured by the heat from flues.

When the plant is fully cured the tobacco is bulked down. It is then assorted, stripped and prepared for market. For the most part tobacco must be marketed within a limited season following its production. If tobacco is held for any length of time after curing, without redrying, it will deteriorate. Many types are redried immediately after they pass from the growers' hands.

An auction warehouse system of marketing has become established in most regions. The warehouse provides the market place with all facilities and services that are necessary in transferring ownership from grower to purchaser. Market facilities have been developed for this purpose which make rapid handling and quick payment to the growers possible. Sales are made with great rapidity, usually about 300 lots per hour, although sales of 350 to 400 per hour are not uncommon. Some country buying is also practiced. The larger companies, seeking the choicest tobacco, will send their buyers to the barns to purchase the crop.

Much of the tobacco sold on the auction floors, and all that is sold through the tobacco associations, is graded by Federal graders before it is offered for sale. An official grade card is placed on each basket giving both grower and buyer the opinion of a disinterested party as to quality.

Dark fire-cured tobacco is one of the principal export tobaccos, about 80% of the production being unsuited for local manufacturing. That which is kept is used for making snuff and plug wrapper. The chief region of production is central Tennessee and western Kentucky. The leaf is heavy and dark. It gets its name from the way it is cured.

Very little burley is exported. Because of its power of absorbing it is one of the best of chewing tobaccos. As the leaf is light, burns well and has a good flavor, it is used also in the making of cigarettes. The chief place of production is the limestone region of Kentucky.

A larger quantity of bright flue-cured tobacco is used than any other kind. It is the most important type of smoking tobacco. Because of its popularity about fifty per cent of it is exported, England buying large amounts. Virginia and North Carolina, especially in the Piedmont, are the states that lead in its production.

The successful tobacco farmer follows a strict crop rotation. That which is followed by a majority of the farmers is tobacco, corn and a hay crop, usually clover, or lespedeza, or both. In the dark-fired and burley district wheat serves as the fourth crop of this rotation, but in the flue-cured area peanuts often replace wheat. Each crop occupies the land a year. This is a good crop rotation theoretically and practically. The nitrogen stored in the soil by the clover helps, to a great extent, to meet the demands of tobacco for this element. In areas where scientific rotation has been followed over a period of years the yield has increased 100 to 300 pounds per acre.

Tobacco is the oldest cash crop produced by farmers of the United States. It has been 330 years since the first shipload was sent from Virginia, but to many rural areas, today, tobacco is just as important as the chief source of income as it was in 1618.