THE

TOBACCO GROWER'S

GUIDE.

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Tobacco properly cultivated and richly cured, is a source of great profit to the man that grows it, as long as men will use the weed; but it ought to be every man's duty to discourage the rising generation from the needless habit of their forefathers.

The disorganized condition of our country and the prevailing high price of the weed, will need many new hands for its cultivation, to keep old men from longing for their cuds.

From the want of proper knowledge of the raising and curing of Tobacco, outside of the Slave States, I was persuaded to publish this work. In my judgment, a few short plain rules, established by the best opinions and practices of the present age, better adapted to meet the present wants than volumes of historical accounts of the customs and practices of raising and curing Tobacco for hundreds of years past. A boy could solve sums without rules with as much success as a man could succeed in raising and curing Tobacco without a proper knowledge. The farmer who cultivates the crop, if he would succeed, must consider well what he has to do, and when it ought to be done, and stand ready to do it in its proper time. When old land is planted, it must have the choicest manure on the farm. Then he has the ground to plow and prepare, and when the time comes to transplant, the plants must be set, no matter what stands in the way. Then the plants killed by grubs, or those that fail from other causes,

must be reset immmediately. The transplanting and early tillage, coming upon the farmer as it does, from the first of June to the first of July, it finds the farmer, with his hands full, tilling his corn, and his wheat and grass getting white for the harvest, though the toppings, suckering and much of the worming is done after his wheat crop is gathered.

THE SEED BED.

In selecting a spot of ground to make the seed bed, choose one with a warm exposure of moist, black ground, that can be well drained. The ground should be new, rich, and free from grass or weed seed, for the bed can not be weeded without disturbing the plants more or less.

In preparing the ground for the seed, spade it up deep and fork it up perfectly mellow, and remove all roots and all undecomposed objects; then throw it up in beds four feet wide, with paths at the sides, so as to enable the hand to weed the Plants from both sides of the bed, and keep them perfectly clean. After the bed is forked up perfectly mellow and loose, lay on some dry brush and litter and burn them. The object of this is, to destroy insects, grass and weed seed. The ashes add fertility to the soil, the charcoal gives it a dark, warm color, and makes a most friendly preparation for the fine seeds. If the bed is stirred any after it is burned, fork it up so as not to turn the top soil under.

Allowing about a square rod for each acre intend for tobacco, it requires about a large thimble full of seed to the rod, though when planting many acres you can allow less ground for the seed bed. For every thimble full of seed mix it with one pint of ashes or fine soil that will crumble in the hand, and sow it broad-cast. After the seed has been thus sown, rake the surface of the bed over very slightly; then tread it down with the feet, or spat it down with the spade; or, a better way is, to take a piece of plank, twelve or fourteen inches square, put a handle in it like a churn-dasher, then walk backward, spatting the bed down evenly, in order that the ground may at once adhere closely to the seed. If your ground does not become dry enough to spade up in the spring, you can burn the brush on it first and dig it up slightly afterwards. The beds must

be kept in a moist state from the time the seed is sown until the young plants are large enough to remove.

Cover the beds with some fine brush, so as to partly shade it The brush gives protection from frost, dashing rains and drying winds.

Sow the seed in the spring, as soon as the ground becomes sufficiently warm and dry.

Keep your outlet drains as deep as you spaded your beds, so that the ground will not settle too compact by being filled with water. After the plants are well started, take off the brush and weed them and thin them out when crowded. You can promote a more vigorous growth by occasional watering with dilute liquid manure, or spread on some strong manure, finely pulverized, from time to time, as they are able to bear it. The largest will be ready to transplant about the first to the middle of June, in latitude 40 deg., the time varying as you go North or South. The transplanting continues for some days, or even weeks, according to the weather. The best soil is a light, mellow and deep sandy loam, if sufficiently enriched. New land will require less manure. A good black loam I consider next best, if sufficiently drained. Lime soil is not good. Heavy loams produce large crops of tobacco, but not so fine a quality. Choose a location that is not exposed to early frosts; low swamp holes are bad on this account. First rate corn land is good tobacco land. Good drainage, sufficiently manured, well aired and pulverized, is the necessary preparation of the soil for an abundant crop. Locations, subject to hail storms late in the season, are very destructive to the tobacco crop. In preparing the soil, it can be manured to most any extent: apply your coarsest manure before plowing the first time and your finest at the second. Early in the spring plow your ground deep, harrow fine and smooth, and if lumpy, roll so that the soil will keep moist and give the weed seed a better chance to germinate. Let it remain in this condition until the plants have attained about half their size for transplanting, or when the leaves are the size of the thumb nail. Then where sub-soil has been turned up, apply from fifteen to twenty bushels of hard wood ashes to the acre, and as much more fine manure as you like; then plow and harrow again, letting it remain until the time to prepare it for the plants about the first of

June, then plow and harrow the third time; after that take a two-horse plow, throw your ground up in beds four feet wide; then if you want to plow your tobacco both ways, make it crosswise with a light sled, three and a half feet apart. If you do not want to plow both ways, the plants can be set from two and a half to three feet apart in the beds. If the soil is not sufficiently mellow, each place for the plant can be forked or chopped up with a long bladed hoe. This is much cheaper than our Southern plan of making up hills by hand, and better than planting on a flat surface.

The plants when set should be about the size of cabbage plants, or have four leaves, the size of a silver dollar. The time for setting commences about the 10th of June, in latitude 40 deg., and the 15th, in latitude 41 deg., varying about five days every degree of latitude, North or South, The plants are liable to be cut by the cut worms until they get well to growing. These worms generally cease their work in June, when the warm, showery and growing weather sets in; it is best therefore to watch when they quit working on the young , as the most proper time to commence setting the plants. In taking the plants from the seed bed, you take a small, sharp paddle of iron or wood, about an inch wide, and stick it down by the side of the plants; give it a pry to loosen the ground, at the same time taking hold of the plants with the other hand, carefully holding the leaves close towards each other, gently pulling them up and placing them in a basket to carry to the field. After taking up those that can be planted during the day, water the nursery that the earth may adhere to those remaining. The evening is the best time for setting out the plants; but, where a large field is to be cultivated, it will be well to plant both morning and evening. Plants set out in the morning, unless in cloudy or rainy weather, should be covered immediately, and the same should be done with those that are planted the evening previous, should the day open with a clear sunshine. Some large leaves will answer the purpose very well, but it is better to mow a few swaths in thick, short grass, wet it thoroughly and use it to cover the plants.

You must look over your fields every morning, for some days, to look after the worms, carrying a few plants with you to reset, if any have been destroyed by the worms or failed to grow. You will of-

ten find the worms close by the injured plants, under ground, which should be destroyed. They resemble the grub worm. Move the plants for resetting with a ball of earth attached, that they may be less put back, and that the field may be more even in its appearance. In setting the plants, you take a blunt, sharp stick, punch it in the hill, making a hole, then take the plant between the thumb and fingers and set it in the hole, pressing the soil to the roots with the other hand, being careful to keep the bud just above the ground. It is a good plan to make a mark, descending from it to the water furrow, with the planting stick. The object of this mark is, to drain off the water and prevent the soil from running together and becoming hard about the plants by hard rains, which are sometimes very injurious.

CULTIVATION.

It is important in the early growth of the plant, to plow and work the soil deep once or twice, so that when it is ripening, the ground will be broken deep and fine and be less affected by drouth; this should be done before the roots have made much progress. Hence, the advantage of greater distance between the rows is, it can be plowed and worked with less damage to the roots. In this as well as all other crops, if we wish a good return, we must be active with plow and hoe before the roots run out, that we may have the soil in a mellow condition for the roots to run into, not waiting for the roots to spread in the packed ground, and then breaking up the ground, roots and all trying to pulverize the ground for the roots. On our high land we should endeavor, by deep plowing, to counteract the bad effects of drouth, and on our flat lands we should aim to prevent the collection of water by drains, discharging at the lowest points. From the time the plants are set out, the earth around them should be occasionally stirred with a rake or hoe; at first hoe flat, but as soon as the leaves assume a growing disposition, begin gradually to draw a slight bed towards the plants, which must be closely examined even while in the nursery, to destroy the numerous worms that feed upon them, cutting the stalks and gnawing the leaves when first set out. After the plants are too big for the plow, finish stirring the ground with a hoe, by drawing up good hills around

the plants. If the ground is broken and stirred deep while the plants are small, they will suffer but little from drouth.

PRIMING.

The object and meaning of this is, to strip off the under leaves of the plant that they may stand clear off the ground and be not injured. You commence priming when hoeing, and finish when you do the topping; the plants are primed from four to eight inches high, six is the most proper height; but when the plants are small, late in the season, it is better to prime only four inches. The object is, to have the leaves clear the ground. The prime leaves can be saved when of any size. When priming, leave a pair of leaves together, standing opposite on the stalk, and when topping, leave a pair at the top, standing the other way, that the stalk may be balanced, and have as many leaves on one side as the other.

WHEN TO DO THE TOPPING.

As the topping of the Tobacco Plant is all essential in order to promote the growth and to equalize the ripening of the leaves, I would observe, that this operation should, at all events, commence the instant that the bud of the Plants show a disposition to run up to seed. It is topped two to three feet high, and performed by nipping off the bud by the aid of the finger and thumb nail; washing the hands after this in water is sometimes necessary, as the acid juices of the Plants otherwise would soon produce a soreness of the fingers.

In topping, leave from eight to sixteen leaves, according to circumstances and condition of the Plants and the lateness of the season. The less leaves you leave the larger they will grow and the sooner ripen. I consider from ten to fourteen leaves the most proper number to leave on; though some planters prime to six inches and top to eight leaves. When your plants are small and the season is far advanced, prime less, and when your Tobacco is large and on an extra rich ground, top higher, remembering always to leave on about what you think will have time to ripen.

SUCKERING.

After the Plants have been topped, the buds in the axles of the

leaves push forward with great vigor and must be pinched or broken out as fast as they appear, so that all of the strength of the sap will go into the leaves.

WORMING.

The Tobacco worm, which feeds upon the leaves, comes from the egg deposited on the under edge of the leaf by the hawk-moth, sphinges or hornblower. That begins to fly by the first of June or perhaps sooner. This moth is large, and has somewhat the flight of a small bird, quick in its motion and not very shy. It is of an ash-grey color, having two sets of wings. The spread of the wings is from three to five inches. It flies about at dusk seeking its food, which is honey, from various flowers open at night. It visits potato blossoms, and is particularly fond of the blossoms of the Jamestown weed. The more of these moths that are killed, the less will be worms. The moth can be knocked down by watching near the flowers mentioned. The fields should be examined every other day, or at least twice a week to gather the worms. It is easy to be seen where the worms are making fresh cuts, and they will be found on the under side of the leaves. If turkeys visit the field early in the morning, they will destroy a great many worms. The Tobacco worm grows very large and looks very ugly. They are generally killed by pinching them between the fingers. It would be less disgusting for each one to carry a bag or pocket fastened to the side, and bag them for chicken meat. The most suitable persons to do the worming are children from ten to fourteen years old. They can be encouraged by giving premiums to those that gather the most worms. There is also a small worm which attacks the bud of the plant, and which is sure destruction to its further growth; and some again, though less destructive, are seen within the two coats of the leaf feeding, as it were, on its juices alone.

TOBACCO SHED.

It is necessary to have your sheds and sticks all ready before you begin the cutting. Sheds are built different ways; the cheapest and best way to build them, is to put up a frame, either sixteen or twenty-four feet wide, and any length desired. When built sixteen

feet, one length of poles will reach across; and when built twenty-four feet, you set a row of middle posts through the center of the shed, and use two lengths of poles. The posts can be sunk in the ground or set on stones or brick. They are left sixteen feet high above ground. Cut notches in the posts every three or three and a half feet, then put scantling in the notches and pin them to the posts. These scantling answer for the purpose of nailing the boards to, and also for the ends of the long poles to rest on that runs across the shed. These long poles are laid crosswise every four feet. On these poles rest the tobacco sticks. These sticks are four feet long and split about three-fourths of an inch square. The sticks are better split than sawed, because they are not so liable to break.—The first row of girts or scantlings pinned to the posts should be at least four and a half feet from the ground, so as to leave eighteen inches space between the ground and the Tobacco. In putting on the weather boards it is a good plan to have one board to every four feet, hung by hinges, to open and shut, to air it. It is a good plan to let your weather-boards come down within fifteen inches of the ground, and use a swing board to open and shut as the weather may require it. It is necessary to have some ventilation at the roof.—A shed with five hanging tiers, and sixteen feet wide, will require about eleven or twelve feet in length for every acre of Tobacco.

CUTTING.

The cultivator should be on his guard as the Tobacco approaches cutting time and watch the change of appearance in his Tobacco, that he may determine on the proper time to cut his crop. He ought never to cut his Tobacco until it comes to full maturity; which is known by a change in its color, assuming the appearance of a dapple horse, and the leaves become mottled and of a thick texture and gummy to the touch, with swollen veins and tissues apparently bursting with sap, at which time the ends of the leaves by being doubled will break short, which they will not do to the same extent when green. It ought not to be cut in wet weather, when the leaves lose their natural gummy substance, so necessary to be preserved. It ought not to be frostbitten, for it destroys the strength, turns it black and becomes brittle. The cutting is performed by

starting the knife at the top of the stalk and splitting it down to within three or four inches of the ground, then cut of the stalk obliquely close to the ground, strike the butt of the stalk with the knife to jar the loose dirt or sand off the stalk, and then turn the stalk top end down and let it remain so part of the day until the leaves become wilted. When cutting commences, procure a quantity of forked stakes, drive into the ground two rows ten or eleven feet apart, and lay in riders; then on these lay the tobacco sticks six or seven inches apart; then bring the Plants and hang the split stalks astride of these sticks six inches apart, and let it remain here several days until the leaves become partly dried. If it goes to rain it must be removed to the shed. If there comes a light rain, and it can not be removed to the shed, crowd it up close together until the rain is over, so that less rain will fall upon it. If it should happen that you bring more Tobacco to the scaffold than you can hang up the same day, spread it in a row, not more than three stalks thick, so that it will not become too much heated and injure the Tobacco, over night. You go over the field several times in cutting, taking the ripest first. When you take the Tobacco to the shed, if it is some distance from the field, haul it on the wagon, leaving the sticks in it. Then with one person above and one below, you commence placing on the highest poles in the roof the sticks with the Tobacco on them. When placing the sticks on the highest poles, the person below can take half a dozen of the sticks with the Tobacco on, lay them together and fasten a rope to each end of them so that the one above can pull them up by it. Lay some boards on the poles below the ones that you are hanging on to walk upon.—Place the sticks six inches apart and seven or eight Plants on a stick. It requires from one to two months for the stems and stalks to become well cured when air dried. When the Tobacco is put in the shed quite green, and it comes on damp, rainy weather, it may be necessary to make use of some artificial heat. This is done by means of stoves or fires made upon the ground in the Tobacco shed by laying two small green logs crosswise. If the sheds are long you can make three fires, and if it is short you can make your fire lengthwise. Build the fire between the logs with dry wood, making a very moderate and even heat. The Plants on the first poles

above the fire should be moved to one side. Tobacco wants to be cured in as moderate and even a manner as possible. All high drying winds and damp air should be excluded. If allowed to get too damp the leaves along the middle stem will mold, rot and drop off. Air drying is generally preferred, though in some localities, when raising a large amount, and wishing to make quick work of it, they fire cure it. This is done by placing it in the shed as soon as fallen or sufficiently wilted. Commence warming or preparing the fires the day after housing. The warming fires are kept up from thirty-six to forty hours, the mercury ranging from 100° to 150° F.; this will generally bring the leaf to a drying state. The tail or end of the leaf now begins handsomely to curl, and then the planter must be wide awake. If he is careless and his fires are made too hot the aromatic oil passes off with the sap and smoke and he has a house of red or dark inferior Tobacco. If his fires are kept low, the Tobacco gets into a calmy sweat and the oil escapes. There is more danger of the former than the latter evil. There is more Tobacco injured by too much heat, than a want of a sufficiency. The fire should now be kept steady and regular, with a gradual increase of heat, so that in forty-eight hours the mercury will stand 150° to 160° F. It must be kept at about that temperature until the Tobacco is cured. It is customary to build log fires in the shed or in arches running under it.

In air curing Tobacco it requires to hang in the shed from one to two months, or until the middle stem of the leaf has become dry and will break when rubbed in the hand. If you have but little you can take it down and strip in dry weather as soon as the middle stem of the leaf is well dried; but if you have a large quantity and want to do the stripping through the winter, you must let it hang until the main stalk is well dried, it is then taken down in a damp day, when it is just damp enough to handle without breaking the leaves. Then take it to a barn floor and put it in bulk, ranking it up like cord-wood, changing ends every other course, so that it will bulk up level, and then cover it up with straw so as to exclude all air. It will then enter into a sweat, and will keep in a pliable state for stripping for any length of time. You should be careful not to bulk it down to lay long until the stems and stalks are well dried.—

If you bulk it when the leaves are too dry, they will break when bulking down. After laying a few days, you can go on with the stripping. They are divided into three classes. The best leaves, or first class; the second class, or middling, and the third class lugs, or ground leaves. Some make more classes and some make only two. The stripping is performed by taking the stalk in the left hand and stripping off the leaves witn the right hand, laying the stems straight one way, taking the lugs or ground leaves first. It is then tied in hanks or bundles of from four to twenty leaves. Small hanks are preferred, as they make a better appearance. From six to ten leaves make very good sized hanks. The tying of the hanks is performed by holding the stems of the leaves in the left hand, having the ends even, then turn up one of the leaves of the hank and double the two edges together and commence wrapping at the butt end of the stems and wrap down about four inches, and then open the hank in the middle and tuck the end of the wrapper in it, then draw the hank through the hand and give it a little shake to straighten the leaves. The hanks are put in bulk at the close of each day's stripping to sweat. That is to make Tobacco of them, for before this process, when a concentration of its better qualities takes place, the leaves are always liable to be affected by the weather when hanging in the shed, and can not well be considered as being anything else than common dry leaves partaking of the nature of Tobacco, but not actually Tobacco. The hanks are bulked down by ranking them up two or three feet high, with boards placed to hold up the ends of the rank. If you want to make the bulks two or three feet wide, commence by laying two courses of hanks one on each side with the stem ends out, then two more on top of these by laying them in about four inches, so that the ends of these hanks will come out even to the edge of the wrapper on the first course, and then another until they lap in the center, laying in the same manner as you would fill a rick of wheat. If you have a less quantity to bulk, you can make your bulks the thickness of the length of your hanks, laying the stem end, every other course, in the opposite direction. When your bulks are made, cover them with some sheets or blankets so as to exclude all air from it, and leaving it in this state for about forty days, it acquires an odor strong enough to produce sneezing and the

other qualities of cured Tobacco. The process of curing may now be considered completed. It is now ready to be packed or prized for market.

The packing for market is performed by placing the hanks in a hogshead close together with the stem ends against the staves. One man gets into the hogshead on his knees, placing them smooth and tight together, carrying the outside course clear around in the hogshead, with the stem ends against the staves, then go around with a second course laying this one in about four inches from the staves, or so that the ends of the hanks will come out even with the wrappers on the first course, and so continue until it is filled up in the center; then commence another course against the staves and so on, on the principle of building a round wheat stack. When filled half full put on a lever or screw press and let it remain two or three hours, then take off the press and fill up again, and so on until full. When pressed full head it up tight for market.

PRIZE TOBACCO TO MAKE FINE FLAVORED CIGARS.

This operation belongs to the manufacturer and not to the cultivator. The process is performed by taking some of the injured leaves, but of the first quality, and in proportion to the quantity of Tobacco made, and place them in clear water, there let them remain until they rot, which they will do in about eight days; next break open your bulks, spread the Tobacco with the stems in one direction and dampen them with this water in a gentle manner, in order that it may not soak through the leaf, for in this case the leaf would rot, using a sponge or brush to dampen them with; then hang them in hanks in the tobacco house for about twelve hours, in order that the dampness may be removed, and afterwards pack them in casks or barrels and head them tight until you wish to manufacture them.—The object of damping the Tobacco with this water is to give it elasticity to promote its burning free, to increase its fragrance, to give it an aromatic smell and to keep it always soft. This is the great secret of curing Tobacco for cigars properly.

I have now said all that is necessary to guide the cultivator in raising and preparing the crop for market. I will here add a few words on the kinds best to cultivate this season. I would advise

cultivating mainly the large popular kinds, for few men will refuse bread and go far to hunt sweetmeats when they are hungry; so with Tobacco, at the present high prices, there will not be difference enough this year in the price of the finer flavored small kinds to compensate the difference in the yield. An average yield of Tobacco to the acre is about one thousand pounds, and it can be doubled by extra culture, or half that under shiftless care. It is now selling—the damaged lugs or ground leaves—at ten cents, and the better grades at thirty-five cents a pound wholesale. It will pay expenses at three cents a pound. As the last crop is small and the South can not add much to the new, the North will have to look to her own resources for a new supply, or import at an enormous expense. Therefore, would it not be better to raise our own supply, than to send millions of dollars out of the country for that which we are so well prepared to furnish ourselves? The cost of growing and preparing an acre of Tobacco well for market, is, on an average, about forty dollars. I would here say, he that would grow Tobacco, do it thoroughly. Tobacco is a very exhausting crop on land, and the man that gives not a watchful care of his manure piles, and keeps them under shelter and prevents them from washing away in the streams, and gives not a plentiful return to the land for that which he has taken away, deserves not the name of a farmer, or a place among men. The forsaken fields of the Carolinas illustrate the awful perversion of the wares intended for man. They have taken with avaricious hands from the soil without returning that which was due, until the fields have said, I can give no more. They have forced their laborers to toil without wages, until they have stained their hands and souls in the blood of oppression. They have demanded the profits and control of the Government without returning that respect it was entitled to, and taken by force that which did not belong to her, until the soil that she so wrongly robbed is being drenched with the blood of her sons and neighbors, and brought misery and distress all about her. Let us give to the soil that supports us, that which belongs to her, and deal justly to all men, that we may live in peace and prosperity all our days.