TIMELY TIPS

—TO—

TEXAS TRUCKERS

This publication is intended to direct your personal attention to the 2nd Annual Meeting of the Northern Settlers' Association to be held at San Antonio, April 20-21,

1906. For full particulars, write to

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ISSUED BY

PASSENGER DEPARTMENT

SOUTHERN PACIFIC—SUNSET ROUTE

HOUSTON, TEXAS

TIMELY TIPS

TO

TEXAS TRUCKERS

INTRODUCTORY

The publication of this pamphlet by the Southern Pacific Advertising Bureau was suggested by the receipt of numerous letters addressed to our Industrial Department, asking information in regard to the subjects mentioned.

The immense profits made by truck farmers during recent years in the country tributary to the Southern Pacific lines in Texas and Louisiana, and particularly by those who grow vegetables for the early market, have attracted attention to this industry, and the number of successful truck farmers is rapidly increasing.

With a view of furnishing reliable and useful information in regard to the cultivation of these crops, the following "tips" have been prepared, each one being written by a truck farmer well known as a successful grower and shipper of that particular crop in the territory referred to.

COPIES OF THIS PAMPHLET CAN BE OBTAINED UPON APPLICATION TO

T. J. ANDERSON,
GENERAL PASSENGER AGENT, SOUTHERN PACIFIC
HOUSTON, TEXAS.

TIMELY TIPS TO TEXAS TRUCKERS

ENGLISH PEAS.

BY J. K. ROBERTSON, BEEVILLE

The pea succeeds on a wide variety of soils—a good, rich loam, holding moisture fairly well, being the ideal. Land that has been well manured the previous year will need little, if any, fertilizer to make a crop of peas, but it is a mistake to think that any soil is rich enough for them. Should the land require fertilizer, apply one containing a high per cent. of phosphoric acid and potash (about seven or eight per cent. of each), care being taken, however, to apply little, if any, nitrogenous matter, as this induces too rank a growth of vine, to the detriment of pods. While peas are generally sown in early spring, it has become quite common and profitable to sow in fall for November and December shipping. The 31st day of last December peas netted, on the Houston market, a fraction over ten cents per pound.

The crop is sown quite thickly, in tolerably deep furrows, or in double rows, the better to support itself. From thirty to forty-two inches apart is the usual distance between rows. Deep preparation of the soil preparatory to planting and fine cultivation thereafter are essential for best results.

In picking, care should be taken to gather only full grown and well filled pods, being careful, however, not to let them get overripe. On the other hand, pods, if not well filled, will present a wilted and shrunken appearance when placed on the market and are hard to sell. Have them as cool and dry as possible before packing, to avoid heating. The least dampness causes them to heat or get moldy. Pack in third-bushel boxes or baskets, shaking down thoroughly meanwhile. Baskets covered with thin cheesecloth are preferable, on account of better ventilation, were it not for the rough handling received at transfer points, whereby a great many are badly crushed and broken. Alaska, First and Best and Extra Early for early peas, and Prosperity or Gradus for second early, are among the best varieties for either spring or fall planting.

HOW TO GROW CELERY SUCCESSFULLY.

BY L. HALLER, PASADENA

Celery is one of the best money crops that can be grown. There have been cases where they have realized as much as $1,000.00 per acre. There is but one point in Texas, to my knowledge, where it is grown successfully for markets.

Some nine years ago, while at San Angelo, I heard of some German gardeners nearby having somewhere near twenty acres. I was told by a grower that shipped the crop for them that he had sent one dozen stalks to Grover Cleveland that weighed twenty-one pounds. They were the largest dozen I ever heard of, eighteen pounds being the nearest to it. The latter was grown near Tiffin, Ohio.

There is at present a greater opening for celery than for any other vegetable, not only for our home markets, but also for shipping to Northern markets. There are three months in the year, April, May and June, that the markets throughout the North are entirely bare of celery, and we can grow it and fill up the gap until the Northern celery begins to arrive, which is from the fourth to the tenth of July.

The seed bed is one of the most important things connected with the growing of celery. Spade deep and fertilize heavily, pulverize the soil thoroughly, mix your seed with dry ashes or sand to prevent sowing too thick; sow in rows from four to six inches apart; cover very lightly; pack the dirt with a board or roller. A good idea to keep the dirt moist, is to keep wet sacks or canvas on until it shows, which causes the seed to germinate from one to two weeks sooner. Always shade your bed in summer. If plants are too thick and become spindley, take out the largest and transplant about two inches apart into another bed and shear the balance, which makes them more stalky.

The seed can be sown in the months of June, July or August for fall planting. For spring planting, sow in the latter part of December or fore part of January. Sow in hot-bed, otherwise seed will not germinate. Transplant into cold frame, and from there into field, after all heavy freezes are past.

Celery thrives best on light, black, loamy soil, well drained. Throughout the North it is mostly raised on reclaimed marshes where the soil is very loose, often having to use a wooden plate a

foot long on horses' feet to prevent them from miring, the land all being under-drained.

Any man who has a piece of swamp land in Texas that can be drained has the most valuable piece of land for gardening purposes. It is the home of the onion, the cabbage, asparagus, cauliflower and celery. There is where they thrive best.

For fertilizer use stable manure, well rotted, if possible, or any commercial fertilizer that is rich in nitrogen, one thousand pounds to the acre. The best results are obtained by making two applications, five hundred pounds at each time.

In regard to varieties, my experience has been that the White Plume can stand the least frost, and the Giant Pascal, which is a green variety, stands a heavy freeze. Would advise not to plant White Plume in the fall of the year, but do not neglect it in spring. The Golden Self-blanching is the most popular variety in the South.

To blanch the celery is one of the simplest things, yet it has been one of the most perplexing questions that I have found among men who have tried to grow celery in Texas. All the articles that I have read in papers in Texas on celery advise to hill up with dirt, a method which has been discarded for the last twenty years by celery growers throughout the country. After the celery is large enough to market, use a twelve to eighteen inch board any length, according to height of celery, leaving some of the top sticking out; place boards on both sides of celery, tight bend some iron and use for clamps to hold board in place, after which you throw dirt along the bottom of boards to keep light out, and in from ten days to two weeks, in growing weather, there will be a new growth shoot out of the top, then your celery is ready for market, being clear of rust and crisp and tender.

In climates where the celery has to be housed, it is not blanched while in field. They use the boards they blanch with and build a house large enough to hold their crop, with ventilation at the top, after which it is put in, three or four stalks wide, with the dirt on the boards in between to keep from rotting, where it makes a slow growth and blanches itself.

In shipping, use boxes to contain one dozen stalks, or in barrels.

In conclusion, will state that those who are not situated to irrigate have nothing in store for themselves but failure.

SWEET POTATO CULTURE.

BY C. R. SMITH, EL CAMPO

In discussing the sweet potato question, too much cannot be said in its behalf, for there is no animal or fowl on the farm but what relishes it, cooked or raw, and a more toothsome or wholesome diet for man is hard to find. For feeding stock, its value is about three bushels of potatoes to one of corn, but when we come to the yield, it is from four to eight times that of corn per acre; and no farmer that has a few acres of sandy land has any excuse for not having some good feed for all kinds of stock, and a nice dish of good food on his table three times a day for six months in the year. So I will give you what seems to me to be the best method of cultivation. I know it will not fit all cases and under all circumstances, but I believe it worthy of anyone's consideration.

To prepare the sweet potato bed, dig out the earth three feet wide and six inches deep, and as long as you need. Fill three inches with fresh stable manure, press down smooth, cover with loose soil two inches deep, then lay potatoes on that alongside of each other, not one on top of the other. Then cover with rich soil to a depth of three inches; keep bed moist as long as needed for slips. You can use vines cut ten inches long. Be sure to bury two or three joints in setting out.

In preparing the land, be sure you have it in good tilt, for there is no crop that depends as much on a well pulverized soil as the sweet potato. Make your ridges moderately high, smooth off with a light brush or board that will cover three rows at a time. Now you are ready to wet your slips any time you have moisture enough to make them live.

In regard to cultivation, as soon as the plants take hold of the ground and show that they are going to live, is the time to commence cultivation, for you will find a first-class stand of weeds and grass if you have any seed. Take off the outside feet of your cultivator and put on two twelve or fourteen-inch sweeps on inside feet. (Must have beams of inside feet hung on springs so as to give them a movement in any direction.) You must necessarily go slow, but you will find with a little practice you can clean your drill. Then with a thirty-inch solid sweep once in the middle you will have your potatoes clean. Do this as often as the grass comes up until vines get too long. Remove all grass or weeds that might be left by plow with hand or hoe.

Harvesting.—Two furrows are all that is necessary to plow potatoes up. One with eight-inch break plow and one with middle-buster. But you must put a cutting coulter in front of break plow, one that turns back, so that it will press the vines down instead of running them up against the beam of the plow. Keep the knife sharp and you will have the problem solved as to getting rid of

IRISH POTATO CULTURE.

BY AD. JAHN, GONZALES

In the fall or early winter we haul all the barnyard manure and old hay on the Irish potato land, and plow it as deep as possible. Let the land lie awhile, then harrow and plow again. By the middle of February try to have the land in good condition and perfectly level. If the weather is suitable, commence planting, although the main crop is planted two or three weeks later. We open the furrows with the middle-buster, three and one-half feet apart, and in these furrows sprinkle from 150 to 200 pounds of cotton seed meal to the acre.

Use no other fertilizer than the above mentioned, nor any machinery to cut, plant or dig potatoes.

After having cut the potatoes by hand, with two eyes to a piece, sprinkle them with air-slaked lime. This prevents decay. Now the potatoes are ready to be planted in the furrows. Plant about twelve or fifteen inches apart, and cover three or four inches with sweep or turning plow.

After planting and covering, level the ground by dragging it off. About the time the potatoes are coming up, harrow with a level harrow, if necessary; after a few days, harrow again. The first plowing is generally done with flat-running ten or twelve-inch sweeps attached to double shovel stocks. After that, we use the cultivator with shallow-running sweeps and try to keep the land as level as possible. Plow and hoe as often as necessary to keep them clean.

In selecting the seed, if possible, always use Home or Southern Fall Grown Early Triumph potatoes. The quantity of seed to plant an acre depends largely on size of seed potatoes.

Most any good, mellow soil, with good seed, good cultivation and good season, will grow Irish potatoes and should yield from 100 to 150 bushels of marketable potatoes per acre.

CABBAGE.

BY S. A. M'HENRY, BEEVILLE

Aside from the potato crop, there is probably no vegetable grown so extensively in Texas as cabbage. With a soil and climate especially suited to the growth of this crop, and the further fact that climatic conditions enable Texas growers to mature the crop at a season when the highest prices prevail on the Northern markets, makes it one of the most profitable crops for the vegetable grower who has a large acreage. While the growers in the North are harvesting and marketing their crops, on which, as a rule, they only realize from twenty to forty cents per hundredweight, the South Texas growers are planting and cultivating crops for which they generally receive about $1.00 per hundredweight. There has been, however, wide variation from these figures, as cabbage has sold by the carload as low as forty cents per hundredweight, and as high as $2.75 per hundredweight.

Varieties.—The flat Dutch varieties seem to succeed best in South Texas, and when properly grown give good satisfaction on the markets. The Autumn King is also a very desirable variety for market purposes. The markets demand heads of medium size and very firm. Large, loose heads soon wilt and are very undesirable.

Planting.—Seed for cabbages to be matured during January, February and March are best planted in beds where they may be watered and cared for while small, and then transplanted to the field when about five weeks old. For later maturity the seed may be planted in the field, and where the crop is to be grown, and the plants thinned to a stand.

Soil and Preparation.—Cabbage succeeds on a great variety of soils. The light sand will produce a good crop if properly fertilized, but as a rule the best results are obtained on the dark sand loams and the heavier soils. Drainage is very necessary for the best success of this, as well as most other crops. A crop of cow peas grown on the land the season before planting cabbage is of great benefit, as it not only stores a supply of nitrogen, but also loosens the soil to a considerable depth. The land should be plowed deep and thoroughly pulverized before planting, and then the crop is easily handled.

Transplanting and Cultivation.—On land that is reasonably rich the plants are usually set in rows from three to three and one-half

feet apart, and from sixteen to eighteen inches in the row. Transplanting may be either done by hand or with a horse transplanter, the latter method being the most practical when a large acreage is to be set. Cabbage should be cultivated frequently but shallow, always keeping in mind that it is well to work the soil well up around the stems of the plants, as this protects them to some extent against cold weaher.

Insect Pests.—The cabbage worm frequently makes its appearance while the plants are small. This may be easily remedied by spraying, using one-fourth pound paris green to forty gallons of water, or one pound of arsenate of lead to fifteen gallons of water. The latter, while more expensive, for a single application is the most satisfactory, as it adheres to the plant well and gives a protection for some time. In case the harlequin bug appears, the hot blast torch is the only known remedy that has given satisfactory results. The aphis, or cabbage louse, will be likely to appear if the crop becomes stunted or suffers from drouth during the spring months. If taken in time they may be destroyed readily by spraying with a solution of one pound of whale oil soap to six gallons of water.

Harvesting and Packing.—Cabbage should be well matured before cutting, otherwise it soon wilts and reaches the market in poor condition. Care should be exercised to bruise the heads as little as possible in handling. Crated cabbage carries better than cabbage packed in any other way, but on account of the cost of crates it is frequently shipped in bulk. Before loading a car with bulk cabbage a ventilator three and one-half feet high and about three feet wide at the base should be built through the car. This allows the cold air from the ice bunkers to pass through the center of the load from one end of the car to the other.

Results.—There are very few crops that can be produced at as small a cost, with a very reasonable chance of as great a profit as a cabbage crop. Under ordinary conditions a crop of cabbage may be seeded and grown to maturity at a cost of ten to twelve dollars per acre, not including the cost of fertilizing.

Twenty to twenty-five thousand pounds of salable cabbage per acre are not unusual crops. This even at the lowest prices that have ever prevailed during our market season shows good net returns.

OKRA.

BY J. K. ROBERTSON, BEEVILLE

Okra is, strictly speaking, a Southern vegetable, and so far the demand in Northern markets is somewhat limited. It, however, is becoming more popular each season, as people become better acquainted with its merits. As it is a warm weather plant, delighting in a rich, warm, moist soil, nothing is gained by too early planting of the seed, as they are liable to rot if placed in the soil when cold and soggy. In a small way, earliness may be hastened by planting seed in old fruit cans (after tops and bottoms have been melted out), and growing in hot-beds or cold frames, until weather is favorable for planting in field. They can then be transplanted the same as tomatoes.

There are two distinct types, tall and dwarf kinds. In the culture of either the planting should be in drills, and seed covered from one to two inches deep. If the dwarf variety is planted thirty inches between drills and eighteen apart in rows will be sufficient; for the larger variety three and a half or four feet will be none too much to leave between the rows, and a proportionate distance between plants.

The pods must be picked when young and tender enough to snap between the fingers. Pack in third-bushel boxes or baskets. It is a fairly profitable crop, early in the season, and being light, express charges do not amount to much.

Of the several different varieties, the following can be recommended: White Velvet, French Market and Dwarf Prolific.

BEANS (SNAP).

BY J. K. ROBERTSON, BEEVILLE

Beans, like English peas, can now be found on the markets almost, if not quite, the year round. It is only a few years ago since the writer, when shipping to Northern markets in December, was often notified to "stop shipping beans; out of season; can't sell." This is almost unheard of now, most of the large markets receiving a constant daily supply during the winter months.

A rich, sandy soil, if moisture conditions are favorable, is best suited to the growth of beans. While the plant does not require

an excessive quantity of moisture, if heat is not too great, it insists on a certain amount.

Like peas, they require a fertilizer containing a high per cent. of phosphoric acid and potash. One comprising three per cent. nitrogen, seven per cent. phosphoric acid and seven per cent. potash will give good results on most soils.

Plant in rows thirty to forty-two inches apart. The culture of snap beans is so simple and of such short duration that little need be said in regard to preparation of soil and cultivation of crop, care being taken to hoe or cultivate only when plants are perfectly dry; otherwise it has a tendency to cause anthracnose (pod rust). Spraying with Bordeaux mixture is an effectual remedy for this disease, and should be applied when first bloom buds appear, and at intervals of ten or fourteen days thereafter. For best snaps, pick when pods have attained full length, but before beans get large enough to show much on outside of pods. Pack when cool and dry in baskets or third-bushel boxes; if the latter are used, split top and bottom slats, leaving about one inch space between slats in middle of box. Lay two or three layers crosswise on bottom of box over this space; fill up box slightly above edges, pressing down by hand while doing so; then proceed to top off in manner suggested for bottom. It is necessary to pack boxes full to prevent shrinkage and loss of beans in transit, and yet not tight enough to cause heating. Currie's Rust Proof German Black Wax, Wardwell's Kidney Wax and Davis' White Wax, for wax or yellow podded sorts, and Burpee's Stringless, Giant Stringless and Extra Early Red Valentine for green pods, can be recommended.

SPINACH.

BY J. K. ROBERTSON, BEEVILLE

Spinach is a crop very easily grown, and sometimes pays the grower handsome returns, especially when an extra hard winter in the North destroys the crop there.

There are two varieties of spinach, and except for culinary purposes they have very little in common. The common spinach, planted in the South for shipment during winter months, dislikes heat and drouth and enjoys, a cool, moist soil. On the other hand, the New Zealand variety revels in a warm, dry soil, and will remain green all summer until cut down by frost in winter. The stems and foliage

are easily killed by frost, but the roots are hardier, and will make new growth when warmer weather comes. This variety, unlike the common spinach, sends out shoots or vines with small, pointed leaves. In tenderness and flavor it is equal, if not superior, to the common variety, and is well worthy of a trial in the home garden for summer greens. For the common spinach, seed may be sown broadcast or in drills in good, rich soil. Broadcasting the seed is usually preferred, unless conditions are such that irrigation must be resorted to; in this case planting in drill will be found more convenient. Plants should have from six to nine inches space to allow plenty of room to make large leaves. When leaves have reached required size they are cut off just below crown of plant, leaving small piece of tap root sufficient to hold them together. Pack in barrels well iced, or in ventilated bushel boxes. Bloomsdale or Savoy Long Standing and Prickly or Winter are all good varieties, with preference in order named.

BEETS.

BY S. A. M'HENRY, BEEVILLE

One of the most sadly neglected profitable vegetable crops for the South Texas diversifier is the table beet. This crop may be planted in the early fall, and by a continuous planting at frequent intervals, be had for market from December until late spring. Few vegetables are as free from disease or have as few insect enemies as the beet. Being also very hardy, it is one of the safest crops to grow. For best results in marketing, the beets should not be allowed to become full grown before gathering. They should be pulled while young and tender, tied in bunches of from four to five, washed clean and tops cut about one-half length.

Beets are usually packed in barrels for shipment, and will carry a reasonable length of time without ice if the packages are properly ventilated. Only the flat and globe-shaped varieties should be planted for market purposes, as the long varieties do not sell well on most markets. It is also important that a variety be used that has as few fibrous roots as possible, and also a very small tap root. Beets of this class not only look better when bunched, but also pack to better advantage than a variety with a large tap root. A variety known as the "Electric" seems to be the favorite with most growers.

The gray and dark sandy loams seem to be best suited to the

culture of this crop, although the beet thrives on a variety of soils. Land to be used for the growing of this crop should be thoroughly prepared as for all other vegetable crops. The seed should be planted in drills and given frequent shallow cultivation.

WATERMELON CULTURE.

BY GEO. BANZHAF, ROCKDALE

In growing watermelons for the Northern markets, I always select a warm, sandy loam in which to plant. If the land slopes to the south, so much the better. I break the land in January, and about the middle of February check off the land with a small shovel plow twelve feet each way. Then I take a ten-inch turning plow and throw out with two furrows, plowing deep. Then I put in my fertilizer, always using barnyard fertilizer, putting one shovelful to the hill; too much will cause the vine to fire. After the fertilizer has been put in the checks, I use the same turning plow, plowing very shallow, making a flat bed; then knock bed off with a board, leaving the seed bed on a level. About the first of March I plant my seed, putting eight or ten seed to the hill, using a hoe and covering one inch deep. Every eight days I go over them and replant until I get a perfect stand. When replanting I hoe around the plants that are up. Just plow one way, the way to get the longest row. I cultivate with twenty-four-inch heel sweep, two rounds to the row. The middles are kept clean by one round with a disc harrow. Stir the ground about every eight days. But I never plow around the plants when the dew is on. Thin to two plants in a hill, hoeing each hill as they are thinned. For the last plowing, I use a twenty-inch solid sweep, plowing out the middles. I always try to lay them by when the runners are about two feet in length.

I have found the Kolb Gem to be a very successful variety to grow, but believe I will try the Triumph, as they grow to a larger size. Earliness is what the grower of melons must aim at, inasmuch as the season is, at its best, short. I have found watermelon to be a very profitable crop, if grown early and near a loading point.

ONION GROWING.

BY EDWARD C. GREEN, ASSISTANT HORTICULTURALIST, AND J. K. ROBERTSON, SUPERINTENDENT, BEEVILLE

To supply the great demand for information on this subject the

following practical points are brought together for the benefit of inquirers.

Varieties.—The Bermudas, the red, the white and the crystal wax (the last named being the only pure white Bermuda) are the most productive and satisfactory for general market, although the Creole is held high in favor on account of its superior keeping quality by those who grow for a local market where the whole crop cannot be disposed of at once.

Seed.—The best onion growers insist that the imported Bermuda seed is far better than American grown, and produces a handsomer product. In any event, the best seed of the current year should be secured, as old seed loses all power of growing. The matter of price is unimportant when quality of seed is concerned. Imported seed is grown not on Bermuda Island, as is generally supposed, but on the Teneriff Islands, off the coast of Africa.

Soil.—The soil should be rich and in perfect tilth for best results. The soils of South Texas seem especially adapted to the growth of this crop, and new land produces profitable yields without fertilizer or irrigation. Almost any well drained soil, if rich, will grow onions. Where fertilizers are needed twenty-five to fifty loads per acre of well rotted barn lot manure should be applied, and if commercial fertilizer is employed, one rich in all the elements of plant food, a high grade complete fertilizer, should be used at the rate of from 500 to 1500 pounds per acre, according to the needs of the soil. One containing five per cent. nitrogen, six per cent. phosphoric acid and nine per cent. of potash is considered satisfactory.

Preparation.—If possible, a crop of cow peas should be turned under deep early in fall, and from then forward until planting time the land should be frequently harrowed. "As mellow and rich as an onion bed" is the old saying indicative of perfection in soil fertility and tilth. Get as much of the cultivation done as possible before the crop is planted.

Planting.—The Seed Bed: The seed should be planted as early as it can be obtained from the dealer, usually about the middle to the last of September, or early in October. The seed bed should be in good tilth and not too fertile. Plant in beds broadcast or sow by hand in rows about two inches apart. On a commercial scale sow with seed drill in rows ten inches apart, where necessary to irrigate bed. To secure sufficient plants to supply an acre, planted 15x4¼ inches, about three pounds of seed are required. Depth of

planting is an important point, and may vary from one-fourth to one-half inch, according to the character of the soil.

Two methods of irrigation are practiced; first, a ridge is thrown up around the seed beds and they are flooded. Second, water is let down the middle of the narrow rows by opening a shallow trench with a hoe.

The Field: When the plants are the diameter of a lead pencil they are ready to go to the field. Wet the bed thoroughly, draw the plants and trim the roots with shears or a knife to about one inch, and cut the top to about five or six inches in length. Move plants to field in any convenient carrier, and keep moist and shaded while transplanting. To have rows as straight as possible, for convenience in cultivating, a garden line or marker can be used. Rows should be made fourteen or fifteen inches apart, and plants set four and one-half inches in drill.

Cultivation.—Owing to the surface feeding habit of the plant the cultivation should be shallow and frequent. If possible, the weeds and grass should never be allowed to start. Where irrigation water is used or rain occurs, the soil should be stirred as soon as possible thereafter. Too much stress cannot be laid on the importance of perfect cultural methods.

Harvesting.—As soon as eighty or ninety per cent. of tops have fallen the crop is ready to harvest, and should be gathered without delay. The onions may be plowed out or pulled by hand according to character and condition of soil. Gather in windrows and allow the crop to dry, though care must be taken to prevent injury from too long exposure to hot sun. Remove tops and roots with sharp knife, grade and crate in field. Unless shipment occurs at once the crates should be carefully removed and stacked in a well ventilated shed. Throughout harvesting special pains should be taken to avoid bruising the tender bulbs, as they immediately show the effect of rough handling and soon decay.

Onion Pests.—The most common injury reported results from the attack of the Thrips, which may infest the crop from the seed bed forward. Their presence is easily detected by the yellow appearance of the top and the sticky feeling of the leaves. Prompt measures must be taken to save the crop, and experience has shown that a fine spray of a solution of one pound of whale oil soap in six gallons of water will control the pest in two applications, provided the very center of the plant receives a thorough dose.

RADISHES.

BY J. K. ROBERTSON, BEEVILLE

The radish will thrive on any good garden soil, and is a relish that may be enjoyed the year round. To secure a crisp and delicate flavor, conditions must be favorable to a quick growth. Land must be thoroughly prepared and fined to make good seed bed. Seed may be sown broadcast and harrowed in, or planted in rows from eight to fifteen inches apart. Some prefer planting in double rows from four to six inches apart on slightly raised beds, leaving a space from fifteen to eighteen inches between beds for convenience in irrigating and cultivating.

Planting is commenced in South Texas about the middle to latter part of November, and is continued at intervals to middle or last of March. When about three-fourths to an inch in diameter they are ready to pull and should be tied in bunches of ten to sixteen for turnip rooted varieties and five to eight for long. After being tied in bunches they must be washed and allowed to dry and cool before packing. Great care must be exercised in packing, as radishes suffer more in transit than any other vegetables, a few decayed leaves soon causing a whole barrel to heat and rot. Pack in sugar barrels, first boring three or four auger holes in bottom of barrel to allow water from melting ice to escape. Use about fifty pounds of cracked ice to barrel, putting in first layer when barrel is one-third full, second layer when two thirds, and last when even with top of barrel. Finish packing by placing enough radishes on top to fill space made by melting of ice, and insuring a full package on arrival at destination. Place two or three layers of newspaper on top of radishes to exclude air, tucking it well down and around inside edge of barrel; remove upper hoop and cover with piece of gunny sack, afterwards driving down and nailing hoop securely to hold sack in place. For general market purposes, the Scarlet Turnip White Tipped, turnip rooted, has the preference. Where a long radish is required, Market Gardeners' Long Scarlet and Early Short Top Long Scarlet are both good. For home use, Icicle and Round Scarlet Chinese, remaining a long time in edible condition, can be recommended. There is no reason why radishes should not yield the truck grower a handsome profit, when we consider that three crops may be grown in South Texas on the same piece of land during the winter months, and yield from thirty to fifty barrels per acre each time.

CANTALOUPE CULTURE.

BY HUGH M. SMITH, BROOKSHIRE

Ground for Cantaloupes.—We have found that stiff, close land makes the most solid cantaloupes, and carries best to market, but sandy land matures the cantaloupes a few days earlier, and in case of dry, hot weather, the cantaloupes are liable to sunburn. The ground should be plowed deep and early, and, if possible, should be plowed before the first of the year, then winter rains pulverize and pack the soil, making more easy to plant and get a stand, as well as giving a quicker and healthier growth to the plant.

Seed.—Be sure your seed are strong, healthy and pure. The Rocky Ford (Netted Gem) is the only variety which it will pay to plant in South Texas.

Our experience has not convinced us that the seed grown at Rocky Ford makes any better flavored melon than seed grown in Texas of the same variety.

If ground is wet, plant shallow; if dry, plant deeper, but at no time deeper than to reach sufficient moisture to bring up seed.

One-half pound of seed is sufficient to plant one acre. Plant six feet apart each way. We usually plant with a hoe.

Cultivation.—Cultivate often and shallow. We use sweeps on our cultivators. Use hoes after vines get too large to cultivate. Do not turn vines when loaded with cantaloupes if it can be avoided.

Gathering.—We judge a cantaloupe by its color entirely. It is our opinion that the plan followed in Colorado, of waiting for a cantaloupe to slip from the vine, is unnecessary and injurious in Texas. When they slip they are too ripe to ship from Texas.

The color of the netting of a cantaloupe changes every day after it is formed, turning from green towards white. Close observation will enable one to know at a glance the proper color. Pick every day. Do not allow cantaloupes to lie in the sun or wind. Handle with utmost care and ship, if possible, the day they are gathered.

Packing.—Pack tight so there will be no shake in the package in transit. We have received, as a whole, more money for the same amount of cantaloupes in baskets than in crates. Baskets should hold about sixteen cantaloupes, and the lid should fit tight on the cantaloupe. Standard crates should hold forty-five cataloupes and

fit tight. No slick cantaloupes or those bruised or eaten into should be packed.

Let the inside cantaloupes be as good as the outside ones. Pack just as though you were going to be present when the package is opened.

CULTURE OF CUCUMBERS.

BY W. H. WHYTE, ARCADIA

In order to grow a good and paying crop of cucumbers, the land should be in a first-class state of cultivation and moderately well fertilized. Where stable manure is used, one or two months before planting, and in the Coast Country of Texas where drainage is bad, it is a good plan to throw up ridges with a turning plow about three feet, six or four feet apart, on top of the manure when it is put in the row, sometime before the planting season. This enables the land to dry out and get warm a little earlier than when left flat. When the time comes for planting, these ridges should be thoroughly harrowed until they are down to required height, about four inches above level.

The seed should then be drilled in about one inch deep and run over with a clod masher.

When the plants are well established, they should be worked with a fine-tooth cultivator and hoed to a stand of twelve inches. If given good cultivation until they are running half way across the row, and then laid by with a big sweep, there will be no lack of cucumbers.

The matter of gathering and packing is an important factor as to the success or failure of a cucumber crop. They should never be left in the sun after they have been cut off the vines, but should be carried to the packing shed at once and placed as tightly as possible, without bruising, into the boxes they are to be shipped in; and while they are being hauled to the depot it is better to cover them from the sun, if only with a few old sacks.

Cucumbers can be made a very profitable crop by a number of farmers in a neighborhood going in together to load cars.

GARLIC.

BY L. SEABROOK, PORT LAVACA

Garlic growing has reached sufficient importance at Port Lavaca to be classed as one of the regular crops of the trucker. It has been

generally supposed that a few small beds should be the limit of the grower. It cannot be grown to anything the extent of onions or cabbage, but has nevertheless gone far beyond the traditional small patch stage.

The vast increase in the Latin population of the United States, the huge packing establishments that are to be found in the Western cities, the countless local butchers and sausage makers and big hotels and restaurants all help to swell the demand for this product of the gardener and afford him a profit. D. K. Strait is the largest grower of garlic in the Port Lavaca district. He puts it in by the acre, and is reported to be the biggest man in the state in that business. He says he has concluded to make garlic his leading crop. The yield, he finds will average by the pound about one-half as much per acre as onions, but the crop is more easily cultivated, flourishes better in a cold spell in mid-winter, and brings a much higher price. It keeps from year to year, and is more like cotton in this respect than any other crop. He says the crop of the winter of 1903 and 1904, much of which he still has on hand, brings him five cents per pound net. The Texas garlic crop last year was the largest ever grown, and the prices fell. At one time Port Lavaca was offering it on the markets in carload lots, and the amount staggered even the great Chicago packers. The consequent low prices caused many truckers to stop growing it, and now the market is going up, and Mr. Strait expects to sell at eight cents per pound soon. He states that garlic will always be a highly profitable crop at five cents per pound to the trucker, and, taking a series of years, this is a low figure. The garlic along the coast here attains the size of the average onion, and is grown readily without fertilization or irrigation.

ASPARAGUS.

BY WM. BLAKESLEE, HALLETTSVILLE

The growing of asparagus for profit in the Coast Country of Texas is but in its infancy, but the attraction it offers to the trucker and market gardener will soon be recognized and the delicious vegetable will take its place with the potato, the onion and the cabbage in bringing in large revenues. Asparagus was the choice dish of the ancient Romans, and has preserved its popularity to this day with all nations, but as it is a vegetable that requires studied cultivation, its culture has not been pushed in Texas, where the turnip, the radish and the coarser vegetables almost grow wild. In the New England

States and Maryland, also in parts of California, it is a leading crop, and very profitable. A farmer who has twelve to fifteen acres in asparagus beds has a splendid living, as this crop will produce from $150.00 to $250.00 per acre after the third year. In the Coast Country of Texas conditions of soil and climate are perfect. Asparagus thrives in a light, well drained, deep, sandy loam, with a good clay subsoil such as we have so much of. The soil should drain well and it would be best to have the land slope to the south, with the rows running north and south. The novice in the culture of asparagus would likely be best pleased if he purchased one-year-old plants, of which it would take about 2,500 to an acre, as by purchasing the plants he will have to wait but one year before he begins to realize on his crop. If he begins by raising plants, it will take two years. The planter of this vegetable should experiment as to the distance in setting the plants. It is urgent that the plants be given ample room for the roots to grow and feed, as it must be remembered the plant once well set and properly and regularly fed by manure and fertilizers will produce profitable crops for twelve to fifteen years. The plants may be set in rows three and a half to four feet apart and three feet apart in the row. The ground should be prepared well and a deep furrow run and a rich dressing of rotted stable manure mixed well with the soil, in which trench the plants should be set; the crown of the plant should be six inches under the surface of the ground when made level. The first year the spears that shoot up should be allowed to grow until fall, and with the fall rains it is advisable to give a top dressing of manure, and again in the spring. The ground should, during the fruiting season, be kept loose and free from grass and weeds at all times. An asparagus bed should have a place in every man's garden in South Texas, as fifty plants will furnish a family with a bountiful supply with plenty left for drying nd canning purposes, and requires less labor and expense than almost any other vegetable after the first two years. The counties of Lavaca, Jackson, Caldwell and DeWitt are peculiarly well adapted to the growth of asparagus, and success would attend the experiment.

CAULIFLOWER.

BY J. K. ROBERTSON, BEEVILLE

The cauliflower is the grandest vegetable of the cabbage family, and in South Texas, especially near the coast, it attains large size

and superb quality. The growth of the cauliflower is in the main the same as the cabbage except that it is a little more susceptible to heat and cold than the latter. To get best results the soil must be rich; in fact, it can scarcely be too rich for this crop. It also must have sufficient moisture at all times, especially when forming heads or flowers. Neglect at this time will surely result in partial or complete failure.

Seed and Seed Beds.—The most important point next to rich ground is the seed. Many are deterred from growing cauliflower on account of the high price of this article. To those I would say, it is better to pay a fancy price, if necessary, and get good seed, than to buy an inferior article simply because it is cheap, and find at the end of four or five months that your efforts have been wasted. The Snowball, so far, has proven to be the most desirable and successful. For the seed bed, select a moderately rich and well drained piece of soil, and after thoroughly working and mellowing, mark off your bed four feet wide and as long as convenient or necessary. Sow the seed thinly in rows three or four inches apart, and cover from one-half to three-fourths of an inch deep, depending on nature of the soil. After sowing the seed, the bed must be thoroughly wet and kept moist until the plants are up, which will be in from three to five days. After this the bed must be watered every day, unless it rains or during cloudy weather, until the plants are half grown, when every other or third day is sufficient. For transplanting on a large scale, seed may be sown in rows twelve or fourteen inches apart with seed drill, and irrigated by running water in furrows between rows. In South Texas seed is generally put in the ground from the middle of July to middle of August, and as the weather at this time is usually hot, some growers shade their seed beds. On the other hand, others claim that this is unnecessary, and that they get better plants without shading. Where protection is considered essential, a good shade may be made by using the common, unpainted, woven picket fence, with slats about one inch apart. Erect a light framework four or five feet high and lay picket fence on top. This is a cheap and convenient shade, and with proper care will last for years, as it can be easily taken down, rolled up and laid away for future use.

Preparation of Soil.—As mentioned before, the soil should be rich and mellow. If possible, a crop of cow peas should be turned under seven inches deep about the time of planting seed. This will give

the peas a chance to rot before transplanting time, and furnish nitrogen as well as humus to the soil. Where cow pen or stable manure is available, an application of twenty to twenty-four two-horse loads per acre will give marked and beneficial results. If commercial fertilizer is used, one containing four per cent. of nitrogen, seven per cent. of phosphoric acid and nine per cent. potash should be applied broadcast or distributed in furrows at rate of 500 to 800 pounds per acre, and thoroughly worked into soil eight or ten days before transplanting.

Transplanting.—In about six weeks from sowing of seed, the plants, if they have had the proper care, should be ready to go to the field. Where irrigation is practiced, furrows are laid off three and one-half feet apart, with an eight or ten-ich shovel plow on a single stalk. Water is then run down each furrow and plants transplanted, with trowel or dibble, to one side of furrow, preferably the south side, if rows are running east and west, or west side if running north and south, the edge of the furrow protecting the roots of the plants from the hot sun during the middle of the day and afternoon. Where water is plentiful, it is a good plan to irrigate in same furrow immediately after transplanting, as this firms the soil to roots of plants, and insures a good stand. If the weather is hot, transplanting is best done in the evening or during cloudy weather. Before drawing the plants from the seed bed, the ground should be thoroughly soaked, so that in pulling the plants the small rootlets may not be broken, and also that some dirt may adhere to them. Place the plants in some convenient carrier to take to field, taking care to keep roots moist until transplanted.

Cultivation.—The following morning before plants have had time to wilt, rake in furrows with hoe or hand rake. If transplanted without irrigation, cultivate with small-tooth cultivator; in about five more days cultivate again, this time going from two to three inches deep, and from this on until plants show signs of heading cultivate often but shallow.

Marketing.—Some growers advocate tying leaves over heads when flowers first appear. We find this unnecessary, except with a few of the very first, as, where a good strain of Snowball seed is secured, the leaves are sufficient to protect flowers from sun. When heads have reached sufficient size and have the appearance of a mass of rich, creamy curd, they are ready for market. In cutting use a sharp butcher knife. Grasp the head firmly in left hand, with fingers extended

over and around the head, make a clean cut, severing the head from the stalk and leaving about four leaves to protect flowers in handling and packing. If intending to wrap with paper, cut leaves off within one inch of top of head, and after wrapping pack carefully in barrels or crates. Another good plan, especially for shipment to Northern markets, is to tie leaves over flower, then cut about an inch above where tied.

There is no doubt that cauliflower, if properly grown and handled in South Texas, should prove profitable to the Texas truckers, and they be able to supply the increasing demand for this delicious vegetable during the winter months, and in so doing win from California one more laurel for the Lone Star State.

LETTUCE.

BY WM. BLAKESLEE, HALLETTSVILLE

The cultivation of lettuce should become a favorite crop of the truckgrower, for various reasons, principal of which is that it is so generally used by all classes, consequently much in demand. It is one of the vegetable crops that rarely fails to return a nice profit to the grower when properly cultivated and prepared for market. Lettuce may be made to realize three hundred dollars per acre. The cultivation of lettuce is so simple that it does not require expert gardeners to make a success at the beginning. A good, sandy loam soil, of which we have so much in South Texas, is very suitable; it should drain well and be fertilized with rotted barnyard manure, which is the best to use, and should be applied liberally, for lettuce must have a rapid growth to be crispy and head well. Seed should be planted at intervals beginning about September 15th, broadcast in beds. When the plants are large enough, the best results are obtained by setting them out in rows about twelve inches apart and ten inches apart in the row. Frequent cultivation will cause rapid growth.

In preparing for market, cut the head from the stalk and trim off discolored leaves and keep moist and as cool as possible until sold. If to be shipped to a distant market, pack in barrels with cracked ice sprinkled through the lettuce. There is one farm that will ship something like one hundred cars of lettuce to New York this season, and that farm is located as far from New York as South

Texas is from Chicago. This is mentioned to show that lettuce growing may be taken up in a large way for profit. It is a crop that occupies the ground but a short time, and at a season that many other vegetables do not thrive. The months of October, November, December, January, February and March are lettuce months, and the practical truck gardener will find a ready market for this vegetable both in Texas and outside of it.

TOMATOES.

BH PROF. E. C. GREEN, A. & M. COLLEGE

Continued success in growing early tomatoes for the Northern market has induced the older truck farmers to plant more largely than ever before, and throughout East Texas particularly this crop has secured such a foothold that it is no longer to be considered as in the experimental stage. Unlike Irish potatoes, the cost of seed and fertilizers at the beginning of the season is not so great as to prohibit the smallest farmer from setting a patch of considerable proportions. This article is written for the benefit of those just starting with this crop, and it does not contain any information other than can be obtained from any successful grower of garden truck.

The varieties usually planted are Acme, or the Livingston Beauty, although in South Texas many prefer the Earliana. In buying seed the best should be obtained, and only reliable seed firms should be dealt with.

Hot-bed and Seeding.—The hot-bed may be made by mixing equal parts of fresh horse manure and oak leaves or straw, and allowing it to heat. Then when the pile is thoroughly heated it may be packed in an oblong mass, eight feet wide, two or three feet deep, and of the desired length. On top of this warm mass a frame is built, the back board of which should be toward the north and a foot higher than the front board. Six inches of rich earth should be put into the frame, the seed down broadcast or in rows four inches apart, and a cover of cotton sheeting stretched over the top to hold in the warmth. Another way to furnish heat is that of running a brick or tile flue under the bed and causing warm smoke to pass through from a fireplace at the lower end of the bed to the smokestacks at the upper end.

The seed should be planted, if possible, before the 15th of January. When the plants are three inches high they should be transplanted to a cold frame, which is made in a similar manner to the hot-bed, except that no provision need be made for bottom heat.

Preparation of Land, Fertilizers, etc.—The land should be plowed early in February and prepared as any garden soil should be. A fertilizer containing 250 pounds of cotton seed meal, 200 pounds of acid phosphate and 100 pounds of kainit per acre will prove profitable on most soils. This should be harrowed in at least two weeks before the plants are set from the cold frames to the field, an operation which should be performed as early as danger of frost is past.

Cultivation.—As soon as plants are in the field cultivation should begin, and it should continue as a weekly operation until the crop is set. The use of nitrate of soda at the rate of 100 pounds per acre is recommended. This should be hoed in, a spoonful to each plant, as soon as they begin to grow off well after transplanting. The best truckers repeat this treatment about three weeks after the first application.

Pruning, Staking and Tying.—Pruning consists in removing all side shoots and confining the growth to a single stem, and the operation must be frequently performed to obtain best results. As soon as the stem needs support, a stake an inch square and three to four feet long is driven beside each plant, and the growth is tied loosely to it with soft twine. Two tyings at least are necessary during the season. When three clusters of blossoms have set fruit the top bud is pinched off and all the strength of the plant forced into the three hands of fruit.

Harvesting.—As the tomatoes begin to turn pink at the blossom end they are picked, graded to an even size, and packed in four basket crates for shipping. Great care is necessary here to have all the fruit of an even degree of ripeness and size, so that it will reach market in good condition.

The marketing problem is the only menace to this crop, and this is not serious when the goods are honestly and skillfully packed, and good business sense is used in disposing of the product. Whenever a price is offered at track that will allow a sale at a profit it is safest to turn the crop over to the buyer on the spot on the principle that a bird in hand is worth two in the bush.

Insects and Diseases.—Bugs which eat the leaves can be destroyed by spraying the plants with four ounces paris green mixed in forty

gallons of water, in which a pound or two of stone lime has been slaked. Boll worms in green tomatoes should be picked as they appear and burned. Blossom end rot and other diseases may be helped by spraying with Bordeaux mixture, but those troubles are not common.

Further and detailed information may be had free by writing to the A. and M. College of Texas, College Station, Texas, and asking for their experimental bulletin No. 65 on tomatoes.

PEPPERS.

BY W. H. HOTCHKISS, SUP'T TROUPE STATION

Peppers are among the easiest grown of truck crops of Texas, and their season of production when properly handled extends over a period of several months. While the large, sweet varieties have been favorably known in the South for many years, they are only now coming into common use throughout the North, and the demand in the last named section has in the past two seasons greatly distanced the supply. Large profits are made in growing tobasco and cayenne peppers for sauce and seasoning, and the production of chili pepper has been for years a commercial matter of considerable importance.

Growers for the Northern markets plant Ruby King, Bullnose and Sweet Mountain, as large, mild kinds are in demand for stuffing and cabbage pickle.

S. A. McHenry, the successful grower of tobasco peppers, says that five acres in this crop will make a gardener more profit than a hundred acres in cotton.

The Texas soil and climate is especially adapted to the growth of this crop, and peppers do better here than in any other place in America. The soil should be prepared as for tomatoes or other garden crop, and the seeds may be planted directly in the field, or as is more commonly done, some in hot-beds and subsequently transplanted to the field.

Cultivation should be frequent and shallow, and when irrigation can be practiced, the size of the crop can be greatly increased in dry seasons. However, this is the ideal hot weather plant, and it will flourish when other garden crops are dried up and killed. After the drouth is broken by rain the pepper takes a fresh start, blossoms and makes a new crop. It is important to keep the peppers picked off as quickly as they reach market condition, as the ripening of the pods

is a severe tax to the plant, and stops the forming of more blossoms.

The sweet peppers are marketed in crates in a manner similar to tomatoes. Chili peppers, which are now being so largely used by meat canners in the production of chili con carne, are dried, packed in bales, and thus shipped. Cayenne and tobasco are picked green and packed in brine in a manner similar to gherkin cucumbers.

PACKING AND GRADING.

BY WILL G. FIELDS. HOUSTON

"What's in a name?" Who can answer? As we look about us, the varied industries that go to make up the grand drama enacted on the world's great stage, where can we best find an answer to the above question?

I would suggest that we leave the great, smoke-begrimed city, with its millions of whirring spindles, its cringing and plotting throngs of humanity, and go, for instance, down into Texas and pitch our tents with the "Model Truck Growers' Association." There any one of its members can tell you "what's in a name," for he has won a name, and for what? For the excellent packing and grading of his vegetables for the market. He has done it, perhaps, at the expense of a great deal of worry and hard feeling, doubtless, toward the manager who has compelled him to so pack his goods. But with grim determination depicted on his countenance, he has taken up his packages, refused by the manager on account of poor packing and grading, and has repacked them with a most admirable patience, and has presented them again for inspection. But he has not labored in vain. In the far-off city in the North such questions are asked:

"Have you any of those cukes" (as the case may be) "from the Association at ————, Texas?"

"No, but we have some very nice ones here from—"

"No, no, I don't want them. I know what I am getting when I get goods put up by the Truck Growers' Association at ————, Texas, and I'm willing to pay for them, but I'm not going to risk my money and time in goods put up by careless shippers."

And the neighbors of the "Model Association" wonder why they do not realize as much for their shipments as their sister association, when there is practically no difference in the goods as they are in the fields.

The "Model Association" may not have as many cars as her sister association, but has more dollars when the season is spent—and that is what counts.

And so it is. Unless a more uniform packing and grading is put into effect, the association movement will suffer more and more until it will be difficult for it to prosper at all. The association must employ trained men to handle the packing end of the deal, and they must get together to the end that their packages are made attractive, are carefully graded and thoroughly packed.

Fortunately there are many associations that have learned the lesson after many losses and it is to be these unions among the growers which are to get the best treatment in the market.

"The day is gone when the ill-assorted package, made up of all sorts of stuff, will bring good prices in the open market." The buyer has become accustomed to an occasional package of the best, and demands his money's worth. Simply because an article is early is nothing to him. What he wants is quality and sound stuff.

It is a long-headed manager of an association who insists that all goods be packed to a standard, and that all members live up to the rule strictly, or else take his stuff out of the association. This may seem unneighborly, but it is business; and until we adjust ourselves to this business proposition and realize the importance of it, we might as well quit the trucking business.

The careless as well as the tricky trucker (and there are tricky truckers, as any manager will testify) are today the greatest menace to the association. His utter disregard for the rights of his fellow members often causes them heavy losses.

Select a good manager, one who knows how to put up the stuff for the market, and then give your stuff to one of the best distributers in the market. Then back him up with a unanimous support in his rules as to packing, grading, and the character of packages, and back him up with the price he puts on your goods. It is the square deal that pays, and pays every day in the year.

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