

Salem Is the Manufacturing and Market Center of the Oregon Spinach Growing Industry, Which Should Rapidly Expand

WITH SPINACH GROWING, THREE CROPS IN A YEAR ARE POSSIBLE

This Would Require the Very Best Conditions and Business Methods of Intensive Farming; But Two Crops Are the Rule With Best Spinach Growers

(By Luther J. Chapin.)

Spinach is a cool, wet weather crop. It is grown in the early spring months or late summer and autumn. It requires under favorable conditions, from 45 to 60 days to mature.

It requires rich garden soil to produce a profitable crop for commercial purposes.

If the soil is poor it produces only small leaves and shoots to seed.

Since it is the leaves which are used for food, a luxuriant, rapid growth is desired.

It produces on rich garden soil or muck land from two to five tons to the acre. This affords a reasonable profit at the present price of \$30 per ton since the cost of production does not exceed \$30 per acre, and it is harvested in ample time to plant corn, beans, cabbage, carrots or potatoes.

Gardners in the Lake Labish district are eager to contract at the above price, as the crop nets them from \$30 to \$90 per acre and the ground is left in the best of condition for their main crop—one of the above mentioned crops.

Spinach culture on a large scale is new to the growers of this section, and last year was not favorable to this crop, yet a number of men did so well that they are increasing their acreage this year, and all feel confident that they can produce much larger crops.

Some Successful Growers

Among the most successful growers delivering to the Salem Kings Products company last year were:

W. C. Franklin, one-half acre on Sandy river bottom soil, 2,411 pounds.

Gong Gardens company, five ac-

res on beaverdam soil, 21,891 pounds.

C. E. McWilliam, three acres on Lake Labish muck land, 15,890 pounds.

Spino & Riggi, 10 acres on Lake Labish land, 4,101 pounds.

William V. Harris, one and one-half acres on Lake Labish land, 4,119 pounds.

Spinach is a very wholesome food and should be eaten freely by all. It contains a large percentage of iron, and for this reason is used and recommended by hospital physicians.

In its dehydrated form it is convenient to keep the year round in any climate.

The spring crop is used at present for canning and dehydrating but no doubt the fall crop will also be in demand.

The fall crop may be planted after many of the summer crops have been harvested. In fact, it will be possible to produce three crops in one year on the same soil by growing both a spring and an autumn spinach crop. Such a cropping scheme, however, would require the application of the most intensive methods of cultivation and the intelligent use of fertilizers. In other words it would require the application of the best business methods to farming.

While three crops in one year are possible on certain soils under favorable conditions, it is not expected in general. It should be the aim, however, of every farmer to keep his capital working to its fullest capacity as his net returns are thereby increased.

Round Thick Leaf, the Victoria, or the Long Standing.

Cultivation, inasmuch as the rows of spinach are usually spaced about 12 to 14 inches, it is possible only to carry on the cultivation with a wheel hoe or preferably a sharp shovel or scuffle hoe which will lightly cultivate the soil and eliminate the weeds.

Harvesting.—It is customary to harvest this crop either by cutting the plants off at the surface of the ground with a sharp wheel hoe, or

the same shovel hoe that is used in cultivation can be used. The plants will fall over one way and can easily be picked up and placed in boxes, standing at an angle, and the crop can thus be transported to market.

The yield of spinach will usually run from 4 to 8 tons per acre depending upon the fertility of the soil and the skill of the growers.

Any further questions concerning this crop will gladly be answered by the Division of Horticulture, Oregon Agricultural College.

SPINACH ACCORDING TO THE ENCYCLOPEDIA BRITANNICA

(The following is the definition and description of spinach according to the Encyclopedia Britannica.)

The Spinach, *Spinacia oleracea*, is an annual plant, which has been long cultivated for the sake of its succulent leaves. It should be grown on good ground, well worked and well manured and for the summer crops abundant watering will be necessary. The first sowing of winter spinach should be made early in August, and another towards the end of that month, in some sheltered but not shaded situation, in rows 18 inches apart, the plants, as they advance, being thinned and the ground hoed. By the beginning of winter the outer leaves will have become fit for use, and if the weather is mild successive gatherings may be obtained up to the

beginning of May. The Prickly-seeded and the Flanders are the best for winter; and these should be thinned out early in the autumn to about 2 inches apart, and later on to 6 inches. The Lettuce-leaved is a good succulent winter sort, but not quite so hardy.

To afford a succession of summer spinach, the seeds should be sown about the middle of February, and again in March; after this period small quantities should be sown once a fortnight, as summer spinach lasts but a very short time. They are generally sown in shallow drills between the lines of peas. If a plot of ground has to be wholly occupied, the rows should be about a foot apart. The Round-leaved is the best sort for summer use.

MR. WRIGHT GETS 10 CENTS A POUND FOR EARLY SPINACH

Editor Statesman: In reply to your request, will say that I do not consider myself an expert, but a student, in regard to the production of spinach.

My experience has been that spinach requires very rich soil; it is indeed a hearty feeder and requires nourishment enough for a healthy and rapid growth to produce the best flavor in the plant.

Spinach will yield about five tons per acre under favorable conditions. The extra early spinach we have sold at 10 cents per pound. To demand a good price for the early crop we are required to make

a neat and attractive package. The main crop is packed in crates and sold to the groceryman. This crop is generally picked up by the canneries at a fair profit to the grower.

Our method is to prepare the ground early in the fall and plant with a drill in rows 12 inches apart, when conditions will permit in the winter. As soon after the plants have appeared and the weather is favorable, we cultivate them with a wheel hoe.

We consider spinach one of the profitable crops under the above conditions. —Uncle Billy Wright, Independence, Or., Feb. 1.

ROYCE ALLEN GETS FOUR TONS AND HAS ANOTHER CROP

Editor Statesman: Growing spinach on beaverdam, I find is one of the easiest crops we grow.

We prepare the ground as soon as we can get onto it in the spring,

and usually about April 10 to 15 when we sow the seed; drilling it in rows 12 inches apart and using about eight pounds of seed per acre.

The seed germinates quickly and the plants make a rapid growth and

CALENDAR OF GARDEN OPERATIONS FOR GREAT BRITAIN

(Under the head of Horticulture, the Cyclopaedia Britannica, beginning on page 290 of Volume 12, contains a calendar of gardening operations for Great Britain. As the conditions there are very similar to those found in the Willamette valley, The Statesman will, on the first Thursday of each month, copy the list of the matter given by that great authority; for the special benefit of the people of this section who should commit themselves to the slogan "More acres and more to the acre;" and this should apply to city people who can get the use of small plots of land as well as to those who live in suburban and farming districts. Following is the calendar for the current month:)

February.

Kitchen Garden.—Sow successive crops of Early Seville beans, and William L. Advancer, Criterion, and other peas in the beginning and end of the month; early cabbages, to follow the last sowing in August; red cabbages and savoy towards the end. Sow the Early Horn carrot; Early Purple-top Munich turnip; onions for a full crop in light soils, with a few leeks and some parsley. Sow lettuce for succession, with radishes and Round-leaved Spinach, twice in the course of the month; and small salad every fortnight. Plant Jerusalem artichokes, shallots, garlic, horse radish and early potatoes. Transplant for seed, if not done before, all the brassica tribe, including cabbage, cauliflower, turnip, etc., also carrots, onions, beet, celery, endive, leeks and

parsnips. Transplant to the bottom of a south wall a portion of the peas sown in pots in frames in November and January for the first crop. Sow Brussels sprouts in gentle heat for an early crop.

Fruit Garden.—Prune apricots, peaches, nectarines and plums before the buds are much swelled; finish pruning apples, pears, cherries, goose berries, currants and raspberries before the end of the month; also the dressing of vines. Keep the fruit room free from spoiled fruit, and shut it close. Cut down the double-bearing raspberries to secure strong autumn-fruiting shoots. Head stocks back preparatory to grafting.

Forcing.—Sow melons and cucumbers on hotbeds and in pits. Sow carrots, turnips, early celery, also aubergines or egg-plants, capsicums, tomatoes and successive crops of kidney beans; cauliflower and Brussels sprouts in gentle heat, to be afterwards planted out. Plant early potatoes on slight hotbeds. Continue the forcing of asparagus, rhubarb, and sea kale. Pineapple plants require little water, plants in dungframes especially should be kept free from damp; shift the fruiting plants by the middle of the month, if not done in August. Commence or continue the forcing of the various choice fruits; as vines, peaches, figs, cherries, strawberries, etc. Pot roots of mint and place in heat to produce sprigs for mint sauce.

Be careful to protect the stems of vines that are outside the forcing house.

DATES OF SLOGANS IN DAILY STATESMAN (In Twice-a-Week Statesman Following Day)

Loganberries, Oct. 9.
Prunes, Oct. 16.
Dairying October 23.
Flax, October 30.
Filberts, Nov. 6.
Walnuts, Nov. 13.
Strawberries, Nov. 20.
Apples, November 27.
Raspberries, December 4.
Mint, December 11.
Great Cows, December 18.
Blackberries, December 25.
Cherries, January 1, 1920.
Pears, January 8, 1920.
Gooseberries, January 15, 1920.
Corn, January 22, 1920.
Celery, January 29.

Spinach, February 5, 1920.
Onions, February 12, 1920.
Hops, February 19, 1920.
Currants, February 26, 1920.
Paper Mill, March 4, 1920.
Dehydration, March 11, 1920.
Mining, March 18, 1920.
Hogs, March 25, 1920.
Land, April 1, 1920.
National Advertising, April 8.
Sheep, April 15.
Angora Goats, April 22.

(Back copies of Salem Slogan editions of the Daily Oregon Statesman are on hand. They are for sale at 5c each, mailed to any address.)

(It will interest some people to know that these back copies are selling fast—that, nearly every day, orders are received from near and distant points for the whole series. They will be sold out before the fifty-two Slogans are completed, without doubt.—Ed.)

SPINACH FOR THE CITY HOME GARDEN

(Following is the matter under the heading of Spinach in "The City Home Garden," being Farmers' Bulletin 1044 of the United States Department of Agriculture.)

Spinach is another crop that is highly desirable for use as greens. Spinach thrives in cool weather and should be grown both as a spring and as a fall crop. In the extreme northern part of the country only one crop may be grown. In sections where the winters are mild the seed can be planted in the fall and the plants can remain in the ground all winter. For the spring crop plant in the open ground as soon as the soil can be worked. The rows may be as close as 7 inches and 12 to 15 seeds should be sown to a foot of row, the plants being thinned so that they will have

1 1/2 to 2 inches of space for their development.

Spinach requires a very rich soil in order to make it grow quickly. A bed 5 feet wide and 30 feet in length and having about eight rows running the length of the bed will furnish enough spinach for the ordinary family. The entire spinach plant is removed by cutting just above the surface of the ground. From 2 to 3 ounces of seed will be sufficient for a bed 5 by 30 feet in size.

Spinach contains large quantities of iron and is especially desirable as a part of the diet in the early spring.

VEGETABLE GARDENING

By Luther J. Chapin

(The following article on vegetable gardening by Luther J. Chapin begins a series of 10 or 12 contributions that will run in the Thursday (Salem Slogan) issues of The Statesman. They are written largely for the benefit of the city and town residents of this section, who should give more attention to gardening, for many reasons; but suburban and farm residents will find something of value in each article.)

Location and Soil

Success in vegetable gardening as in all other agricultural enterprises depends in large part on the soil.

The location of the garden with reference to slope, drainage, subsoil, soil, etc., are of fundamental importance and should be carefully considered where a choice is possible, but in most cases the garden plot is arbitrarily fixed by the boundaries of the back yard.

Where possible, however, choose a south slope and a sandy loam soil, as it warms up earlier in the spring.

If the land is flat or the soil a silt or clay loam it will remain wet later in the spring and artificial drainage should be provided. No amount of labor nor fertilizer can overcome the ill effects of a wet, cold soil.

The subsoil, or that part of the earth immediately beneath the furrow slice, is equal in importance to that of greater importance than the surface soil itself, as its character, whether sand, gravel or clay, will determine in a large part the drainage and the water holding capacity of the soil.

If a hard clay underlies the surface soil it should be broken up to a depth of 18 inches to two feet and mixed with manure, leaves, or other organic matter. If an outlet is available drain tile should be put in to remove excess water and to supply air. A clay soil is greatly benefited by the action of the air from sub-surface drains. If, indeed, this were the only purpose for underlaying the garden plot with tile, the expense would be warranted. An outlet is not necessary for this purpose.

Drain tile may be put to another very important use in the garden. They afford the best possible means for irrigation. Lines of tile may diverge from a point convenient to a hydrant or well and a stand pipe joined at this point. Water poured into this pipe will supply water at the roots of plants. This will induce deep rooting and the surface soil is not cooled as is the case with surface irrigation and the mulch is not destroyed. Another advantage of this form of irrigation is that leaf diseases are not spread as is the case with sprinkling. Tile for this purpose should be laid about 18 inches below the surface. If the tile are used to remove excess water the outlet may be plugged when used for irrigation. Where tile are used primarily for drainage they should be placed from two to three feet below the surface.

A clay soil does not make a good garden soil, but if thoroughly drained and properly handled fair results may be obtained. In the first place a heavy soil should be plowed or spaded from 10 to 12 inches deep in the fall or in the winter if an outlet can be found when the soil is not too wet.

The action of the frost on a heavy land tends to crumble the heavy soil and makes it easier to work the following season. Fall plowing also disturbs the nests of such injurious insects as live over in the ground and many are killed.

The physical condition of a heavy soil is also greatly improved by a coating of manure is spread over the surface in the fall, and, since vegetables require an abundance of humus, or decaying organic matter, there is little danger of supplying too much. Stable, or horse, manure is best for this purpose but, if this is not available, cow manure may be used. The latter is best for spring application, as it will increase the water-holding capacity of the soil, whereas, stable manure, if applied in spring will tend to dry out the soil. If a liberal supply of manure is not obtainable commercial fertilizers should be applied.

A compost heap has been provided during the preceding season this should be applied in spring as it becomes quickly incorporated with the soil and its plant food is readily available.

Gardens which have had a liberal supply of manure. Contrary to the general belief, cultivation and drainage do not sweeten the soil. Organic decay, which produces acids, is hastened by cultivation and proper drainage. Since most crops prefer an alkaline to an acid soil, it is necessary to supply lime to the soil if best results are to be secured. Lime not only sweetens a sour soil but it helps to liberate plant food from the soil and hastens the decay of organic matter. It also improves the texture of heavy soils by producing a crumbly, porous condition which is so necessary for proper root development. If water-saturated lime is used for this purpose 10 to 15 pounds per square rod is a sufficient amount to apply. If crushed limestone is used three times that amount will be required. Whichever form of lime is used it should be spread broadcast over the surface of the garden and harrowed or raked in after the land is plowed in spring but before any seeds are planted.

Wood ashes may be used instead of lime if a sufficient amount is available. They are of even greater value than lime as they contain, besides lime, varying amounts of potash and phosphoric acid. Ashes from hard wood, such as oak, ash, maple, etc., are more valuable than ashes from soft wood, since they contain much larger percentages of potash, phosphoric acid and lime. Based on an average chemical analysis, however, of potash 5.5 per cent, phosphoric acid 1.9 per cent and lime 34.3 per cent. Wood ashes, which have been kept dry, have a present fertilizer value of about \$45 per ton, or \$2.25 per 100 pounds.

The above estimates are based on retail prices of fertilizers in 100-pound lots or less such as would be



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purchased for the small garden. Ashes should be carefully stored in bins and barrels sheltered from the rain during the winter and applied to the soil in the spring.

The so-called kitchen garden has a value which is not measured by the market price of the products grown. It can be made to supply an abundance of fresh wholesome food always at hand and a greater variety of vegetables can be produced than is usually available in the markets. The satisfaction of having produced it adds an appetizing flavor. Gardening affords a wholesome, healthful recreation for the business man and if the garden is carefully planned and tended can be made a real factor in reducing the present high cost of living.

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Can only do things as well as he can see them. If he be a craftsman his work will become more difficult and less reliable as his eyesight becomes impaired. If he is a brain worker, he will become slower and his task will grow burdensome.

REFLECTIONS

Deterioration of ability is inevitably reflected in the earnings, whether master or employee, or muscular or mental his occupation.

We cannot "lose grip" without losing money—business nowadays is too fierce for that. We must retain our hold, we cannot afford to let slip the advantage which a lifetime's labor has brought us! And the first step is to improve our vision. Much can be done.

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