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BOYS' AND GIRLS' CLUB WORK
SUMMER AND WINTER GARDENS

By A. B. Ballantyne and M. F. Wharton

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BOYS' AND GIRLS' CLUB WORK

CLUB EMBLEM

The four-leaf clover with an "H" on each leaflet is the National Boys' and Girls' Club emblem. The four "H's" stand for the equal training of the head, heart, and hand, and for health.

CLUB PLEDGE

As a true club member I pledge my head to clearer thinking, my heart to greater loyalty, my hands to larger service, and my health to better living for my club, my community, and my country.

CLUB MOTTO

Make the Best Better.

CLUB CREED

The Arizona Club creed is: I believe in boys' and girls' club work because of the opportunity it gives me to become a useful citizen.

I believe in the training of my head because of the power it will give me to think, to plan, and to reason.

I believe in the training of my heart because it will help me to be kind, sympathetic, and true.

I believe in the training of my hands because it will make me helpful, skillful, and useful.

I believe in the training for health because of the strength it will give me to enjoy life, to resist disease, and to become efficient.

I believe in the great trinity of club work: the school, the home, and achievement.

I believe in my country, in the State of Arizona, and in my responsibility for their development.

To the fulfillment of all these things I am willing to dedicate my service.
BOYS' AND GIRLS' SUMMER AND WINTER GARDEN CLUBS

By A. B. BALLANTYNE AND M. F. WHARTON

REQUIREMENTS

SUMMER GARDEN CLUB

1. Every member must be between 10 and 20 years of age.
2. Every member must have consent of parents before undertaking work.
3. Every member must grow a garden at least 6 square rods in area.
4. Every member must attend club meetings and take part in club activities.
5. Every member must keep an accurate record and make a final report of all items of cost, including labor, seeds, etc.; and an accurate record of vegetables produced and sold, and cash received.
6. Every member must write a short story descriptive of his work in the club which he must submit with his final report to the club leader or county agent by November 1.
7. Every member must exhibit his work at club, community, county, or State Fair.

WINTER GARDEN CLUB

Requirements same as above except:

1. Area of winter garden shall be not less than 4 square rods.
2. Report and story are due June 1.

SCORE CARD

Size of club enterprise.. 20
Efficiency of enterprise.. 20
Profit...................... 10
Report and story........ 20
Exhibit.................... 10
Club activities........... 20

Perfect score.................... 100

The above score card will be used in determining trip winners.
THE PREPARATION AND CARE OF THE GARDEN

Tools.—If possible do all heavy work with horses. If a horse cultivator can be used and you have a steady, reliable horse, use them.

For planting, if available, use a regular garden planter.

For hand hoeing, keep your hoes sharp; you will save much hard labor. Sharpen your hoe from the upper side.

Wheel hoes are very effective for hand cultivating and weeding. Have a small knapsack sprayer and a dust gun for dusting corn, etc.

Plans for the Garden.—If there is any choice of soil or location, a sandy or loamy soil with good drainage is preferable. The land should be convenient to reach, both for horse and hand cultivation, and should be easily watered. If the rows run north and south, the plants will afford some shade, lessening evaporation and consequent baking of the soil.

Plan a succession of plantings of the same vegetable where it is liked and is easily grown. Then plan to plant later crops on the soil from which early crops have been harvested. Utilization of all garden ground in this way will prevent the growth of weed seeds for another year on uncultivated soil.

Advice to Beginners.—Do not plant too great a variety of vegetables. A few varieties well grown will be more satisfactory than many poorly grown. Each vegetable requires special treatment and skill in handling, which comes only from experience and observation.

Preparation of the Soil.—Barnyard manure applied abundantly some months in advance of planting and thoroughly worked into the soil will insure a good garden, if supplemented by adequate care and water. Use teams for plowing, harrowing, discing, leveling, etc., as the soil must be thoroughly pulverized before planting. A good firm seedbed is necessary.

Ridding the Land.—In most places in Arizona, ridges are thrown up, the furrows are watered, and the vegetable seeds are planted when the soil is dry enough to work. The seeds are sown so that the soil covering them is just above the water-line. In this way, water can be run down the furrow after the seeds have been planted without causing subsequent baking of the soil over the seeds with a poor stand as a result.

Spacing the Rows.—In gardens where all of the work is to be done by wheel hoe or by hand, rows for small vegetables may be spaced 18 to 20 inches apart. Rows for peppers, potatoes, beans, sweet potatoes, corn, and the like are usually spaced 36 to 42 inches apart; tomato rows for dwarf varieties, 42 inches, and for standard varieties, 48 inches. Cantaloupes and cucumbers are spaced 5 to 6 feet; and watermelons and squash, 6 to 8 feet each way.
**TIME TO PLANT.**—Every section in Arizona will have times for planting each crop which most likely will differ from planting times for the same crop in other places in the State; and the dates, year after year, will themselves vary in the same locality.

If the hardy vegetables like radishes, lettuce, turnips, beets, spinach, smooth peas, cabbage, onions, (sets and seed) chard, salsify, potatoes, etc. are to be grown after the cold of winter is past, they may be planted as soon as the soil is warm enough to insure growth. A succession of plantings of varieties liked best by the family should be made.

In the warm southern valleys, these crops, except potatoes, are usually planted early in the fall, (September and October) and constitute the winter garden.

The summer vegetables are not planted until the soil feels warm to the hand. This is about the time that ash trees are in full leaf, or about cotton-planting time. Your county agent or an experienced gardener can tell you the right time. At this time, Papago sweet corn, cucumbers, summer squash, peppers, sweet potatoes, cantaloupes, watermelons, tomatoes, and beans may be planted.

**NIGHT CAPS.**—Where late frosts are likely to cause damage, early melons, cantaloupes, and tomatoes may be protected by using parchment paper caps; one sheet is spread over each hill at planting time, and supported by a single or double wire arch. The edges of the sheet are covered with earth. Ten days' to 3 weeks' time may be gained this way.

In the lower valleys, beans, pumpkins, squash, late melons, and corn for roasting ears may be planted just before the summer rains begin.

**DEPTH TO PLANT.**—Plants from small seeds like lettuce, carrots, turnips, parsnips, onions, etc. cannot push their way up through very much soil and should not be planted more than one-half to five-eighths of an inch deep. A light, dry mulch may be raked over this moist soil after it has been pressed down. Larger seeds may be covered to a greater depth. If seeds are planted in fine moist soil that is pressed firmly about them and that is of the right temperature, germination will be rapid.

As mentioned previously, seeds should be planted at the water-line on the ridge and covered so that when they come up they will be just above the water-line.

When plants are set out, they are set with the stems above the water-line.

Use plenty of good seed. It is easier to thin than to transplant. Most people will not bother with transplanting or replanting.

**IRRIGATING BEFORE SEEDS GERMINATE.**—In the fall when the weather is hot, irrigate not only to supply moisture but also to keep the soil temperature cool enough so that the seeds will germinate. For that reason,
very often it is necessary to irrigate for several days in succession, or on alternate days, to enable vegetables like lettuce, carrots, and onions to grow. At other seasons, an irrigation 2 or 3 days after planting will usually supply enough moisture to enable plants to come through. Do not let the water flood over the seedbed. In every case it is well to cultivate as soon as the soil is dry enough provided the plants are up.

**Thinning.**—No plant develops properly under crowded conditions. Certainly radishes need spacing of an inch or more; carrots, 2 inches or more; beets, turnips, and parsnips, 3 or 4 inches; and other vegetables in like proportions. Head lettuce is usually spaced 14 inches by 20 inches. Cucumbers and cantaloupes should have two or three plants in the hill, with the hills 4 to 6 feet apart; and melons and pumpkins two or three plants to a hill, with hills 6 to 8 feet apart. Irish and sweet potatoes are planted 12 to 16 inches apart in the row. Peppers should have three plants to a hill with the hills 2 to 3 feet distant. Dwarf tomatoes are planted two or three plants to a hill, and the hills 2 to 3 feet apart. Larger varieties of tomatoes are planted 4 feet between hills. If tomatoes were not subject to losses from wilt, one plant in a hill would be sufficient. However, this disease nearly always causes the death of 60 to 70 percent of the plants, so heavy planting is resorted to.

**Setting out Plants.**—Where cabbage, tomatoes, peppers, eggplants, and sweet potatoes are set out, be sure to have strong, hardened plants. Have water running in the rows. Set the plants with a garden trowel just above the water-line. Keep the soil wet until the plants are established, then cultivate as soon as the ground is dry enough.

Set plants in the evening to prevent wilting, and exercise care to avoid breaking the fine roots in moving plants from the hotbed or cold frame. In setting lettuce, celery, and cabbage plants, clip off part of the old leaves.

**Staking Plants.**—Peas, string beans of the Kentucky Wonder type, tomatoes, and some other plants need stakes or some kind of supports. These provided at the right time bring big dividends in increased yields.

**Irrigation During the Season.**—Keep the soil moist enough so that an hour after sundown, all plants are erect. If any of the plants wilt badly during the day and do not freshen readily after sundown, most likely they are in need of water.

Vegetables to be tender must be grown rapidly, and for this reason use water more liberally than with field crops. In the summer on porous soils, irrigation should be given weekly or more often. During hot weather, tomatoes, peppers, cucumbers, and melons should not be irrigated just as they are coming into heavy bloom as this will prevent the
setting of fruit. However, when the crop has set, ample water is necessary for the fruits to develop size.

Keep the water away from the plant stems or leaves, especially if it is muddy. Injury almost always results from such contact.

Cultivation.—Cultivations should be given frequently, as soon after each irrigation as possible, unless the plants cover the ground. When the plants are young, these cultivations may be deep, becoming more shallow as the roots develop and spread out.

Cultivation serves three purposes: First, it aerates the soil without which roots will not grow properly; second, it promotes better bacterial growth in the soil; and third, it kills weeds. Weeds thrive and unless they are killed while young, they are likely to “take” the garden. Cultivate and hoe frequently and keep them down.

More about Weeds.—Weeds which come up from seeds are killed very easily, if a cultivation is given just after they germinate. When they have grown large, they must be cut with a hoe just below the crown (otherwise growth may begin again) or pulled out by hand. Kill the weeds before they go to seed. Perennial plants like Johnson grass and others having an underground stem or rootstock must be dug up or hoed so frequently that they do not get a chance to grow any green leaves.

Harvesting Vegetables.—Vegetables harvested for sale should be cleaned carefully, graded, and packed. Bunch vegetables should be sorted and those of a size tied together. Broken, bruised, and dead leaves should be removed; and all deformed, bruised, cut, muddy, or decayed vegetables should be discarded. Dirt should be washed off or otherwise removed. Cantaloupes, potatoes, sweet potatoes, onions, and other vegetables offered for sale in crates should be graded carefully and nothing but first-class products sold.

Insect Pests and Plant Diseases.—Gardens planted in clean soil and kept free from weeds usually do not suffer from diseases and pests so much as do those that are neglected. Watch for the first appearance of any diseases or insect pests and consult Farmers’ Bulletin No. 1,371. This describes most of our common Arizona garden pests and diseases and suggests remedies. For help with other troubles, call on your county agent.

Remove promptly and burn any diseased plants.

Varieties to Plant.—The differences in local conditions make it difficult to prepare a list of varieties of vegetables which are adapted to all localities in Arizona. Local gardeners can suggest varieties that are adaptable. Of the varieties which are recommended, select those combining uniformity in growth of product, good shipping qualities, and heavy yields.
Grow varieties that sell well on the market. Kleckley Sweet Watermelons are favorites with farmers and those who grow them; however, the Angeline melons grow more uniform in size, are more attractive in both shape and color, and stand up much better under shipping conditions. If you can grow the best market vegetable, why grow others not so good?

DETAILED SUGGESTIONS FOR GROWING DIFFERENT VARIETIES

As the more important phases of seedbed preparation and cultural care are covered elsewhere in this publication, the following information will consider only the special points that are directly applicable to the vegetables listed.

Planting dates, distance in and between rows, depth to plant, varieties, and proper date of planting for your locality will be found in the planting outline chart.

BEANS

Beans are divided into two classes; dry shell beans and green or snap beans. The dry beans are grown and threshed after they have matured and become dry. Dry beans do well on any type of soil, but one should not use too much manure or there will be a large growth of vine and very few pods. As soon as the plants are well up, start cultivating and hoeing to keep the weeds out and to prevent drying of the top soil. Do not cultivate deeply or too closely to the vines for there is danger of injuring the roots. Stop the cultivation as soon as the vines interfere. As beans are subject to a disease called anthracnose, do not cultivate when the vines are wet for this spreads the disease to healthy plants in the row. Snap or green beans are of two main classes that require somewhat different care. The bush type is cultivated and cared for in the same manner as are the dry beans; while the pole or climbing type is planted further apart in and between the rows, and the beans are supported by a trellis or poles as soon as the runners appear. It may be necessary to use twine to tie the runners to the poles until they climb of themselves.

In harvesting snap beans it is well to pick them every day, picking only those that are about two-thirds grown. If younger than that, they do not have a good flavor, and if older they may be tough and stringy. It is best to pick early in the morning and keep them in a cool place until ready to use.

In harvesting dry beans the best policy is to allow them to mature and then pull or cut the entire vine. Pile them in shocks like hay, and as soon as the pods are tough and leathery from sweating, they can be threshed out on a hard floor by beating with a pitchfork. The beans will shatter out and the vines can be thrown to one side to be used as hay.
BEETS

Descriptive matter relative to the planting, care, and harvesting of beets will be found under the heading, “Root Crops” on page 15 of this Extension Circular.

CABBAGE AND CAULIFLOWER

As these two vegetables are closely related and require practically the same care, they are considered under one heading.

Plant the seed in the bed about 6 weeks before you are ready to transplant to the field. The seedbed should be of good rich soil with a sandy covering. Water in the early morning so that the plants will dry off and the surface soil can dry out before night. In this way you will prevent loss by the “damping off” disease. As soon as the plants are 4 to 6 inches tall they are ready to be set out in the field.

The field soil should be very rich in fertilizer which has been applied early enough to have become thoroughly rotted. These plants are heavy feeders and it is almost impossible to have too rich a soil. Irrigate regularly to keep the soil well moistened until the heads are almost formed. Do not irrigate after this for irrigation will tend to cause the heads to split or to form seed stalks.

To harvest cabbage it is only necessary to cut the head at the surface of the ground when it is firm and mature. Trim off the rough outer leaves until you come to the tender succulent head. Keep cabbage in a cool place and it will last several days. It is also best to cut it in the early morning or late evening to prevent wilting of the heads.

To mature a high quality of cauliflower it is necessary to blanch the head. To do this draw up the outer leaves and tie together with string as soon as the head begins to form. When the lines of separation appear in the head, it is ready to be harvested. Cut the stem near the surface of the ground and trim off all the leaves but the two circles next to the head. Trim the ends of these so they will extend about an inch beyond the head so they will then protect it from bruises. Handle the head very carefully and keep it cool at all times, as it is very tender and will spoil easily.

CORN

In the hotter sections of the State, sweet corn is very hard to grow satisfactorily and is not very profitable except for home use. The Mexican varieties are grown exclusively and care must be taken with these to obtain good yields. In the northern part of the State, sweet corn should be planted in every garden as it grows well and bears heavily. Be sure to have the land in good fertility, for this crop is a heavy feeder. It also responds well to careful irrigation and frequent cultivation.
There is one severe drawback to growing sweet corn; namely, the damage by the corn ear worm. The moth lays eggs on the silk, and the worm hatches, goes down into the ear, and destroys the kernels. To prevent this, take an old baking-powder can and punch the top full of holes to make a sifter. Then fill this with the following powder prepared according to the formula and give frequent dustings to the silk. This will insure a high percentage of worm-free ears.

**FORMULA**

<table>
<thead>
<tr>
<th>Lead Arsenate</th>
<th>1 pound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air-slaked lime</td>
<td>3 pounds</td>
</tr>
</tbody>
</table>

(Mix well and use as a dry dust)

Harvest the roasting ears when, with a pressure of the thumb, you can feel the grains well formed under the husk. They should yield to the pressure and feel fairly soft. The grains then are full-formed and in the milk stage. It is not a good plan to strip down the husk to see if the ear is ready to pick, for the grains will be injured by drying out and will become discolored. Learn to "feel" the ear and you will soon be able to tell just when it is ready to harvest.

**CUCUMBERS**

Suggestions as to the planting, care, and harvesting of cucumbers are included in the subject-matter on "melons" on page 11 of this Extension Circular.

**EGGPLANT AND PEPPERS**

Eggplant is a tender crop and the best results are usually obtained by growing the young plants in the hotbed and then transplanting to the field when 4 to 5 inches tall. After the field soil is well worked down, throw up ridges and set the young plants on the sides of these, following immediately with irrigation. Keep the plants well watered until they are growing nicely. As the eggplant is a heavy feeder, an application of manure in preparing the soil is not out of place.

Harvest the fruit by cutting it from the plant with a knife. Eggplants are picked according to size, and the best quality is obtained when the fruit is from one-third grown to almost mature. If allowed to mature fully on the plant, the fruits may be tough and leathery and the plant will bear fewer of them.

Peppers are given the same treatment as eggplant in regard to cultural practices. They are harvested according to the use to which they are to be put. If allowed to dry, the best plan is to string them and let them hang in the sun for a few days. The bell pepper or stuffing type is picked green as soon as it reaches a desirable size.
LETTUCE

Lettuce requires a seedbed of high fertility with a constant supply of moisture. It is best to plant on a ridge and irrigate often enough to keep moisture within half an inch of the surface at all times until the young plants are in the fourth or fifth leaf. At this time thin the plants in the row to the desired distance. Do not plant immediately after plowing under a cover crop or a heavy application of manure, for it will induce sliming with the resultant loss of a large part of the crop. Do not irrigate after the heads are well formed, for too much moisture at this time often causes the heads to split or to go to seed.

In harvesting head lettuce, cut at the surface of the ground when the head is firm and of desirable size. When lettuce is ready to harvest, all bitterness has left the leaves. If it is to be packed for shipment, trim off a few of the outside leaves. Where it is to be marketed locally or eaten at home, it is a good plan to leave only a few outside leaves. Lettuce wilts easily and should not be allowed to remain in the sun after cutting.

Leaf lettuce is sometimes grown in the home garden for its tender leaves, which are used for salads or to garnish dishes for the table. This type of lettuce requires the same care as head lettuce.

MELONS

All melon crops require the same sort of care, and the following points may be applied to cucumbers, muskmelons or cantaloupes, watermelons, and squash.

A sandy loam or sandy type of soil is really the best for melons and it should be well manured. A good plan is to put a large forkful of well rotted manure about 8 inches below each hill. This manure will be used by the plants mostly after they have started to set fruit, and hence it will not encourage vine growth to the detriment of fruit production. Plant the seeds on ridges above the water-line and if the vines grow into the furrow, lay them back carefully on the ridge and train them along it. Fruit borne where the water can reach it will often spoil on the vines. Do not leave over two plants per hill but wait until the vines have runners a foot long before thinning, as the cut worms or other insects may kill some of them and you will have to replant, in which case the crop will be correspondingly late.

Cucumbers should be harvested before they are ripe. Pick to size; any time after they are 2 inches in length they are marketable. Do not allow cucumbers to ripen on the vine for it saps the strength of the plant and cuts down the total yield.

Pick cantaloupes and muskmelons as soon as the color begins to
appear and when they slip easily from the stem. By cutting one or two open you will be able to determine the proper time for the best quality.

All of us know how to tell when watermelons are ripe by thumping them. If the sound is metallic and flat the melon is green, but if it is dull the watermelon is ripe. It is a bad practice to plug melons in order to determine ripeness for they will decay and be worthless.

Squash should be picked as soon as they reach eating size, except those to be used for pies. Leave the latter on the vines until the rind is hard and shell-like. If you want to keep them until Thanksgiving or Christmas, place them behind the kitchen stove for a week after they have ripened on the vine and then store in a cool, dry place until wanted.

PEAS

Peas do well on any type of soil in Arizona, but for early maturity a sandy loam gives by far the best results. The two principal methods of planting in use are the single and the double-row systems. The double-row is much preferred since one row helps to hold up the other. Peas are also easier to pick when this system is used. In the home garden, pea vines may be trained to grow on stakes or wire netting to make picking easier. To insure a constant supply of green peas for the table, it is a good plan to make plantings every 10 days to 2 weeks, planting only a row or two at a time.

Harvest the peas by hand as soon as the pods are well filled. Do not allow the peas to get too hard for it injures the quality, and they lose some of the characteristic flavor which makes them one of the most desired vegetables.

PEPPERS

The planting, care, and harvesting of peppers are described in the subject-matter devoted to "Eggplant" on page 12 of this Extension Circular.

POTATOES

This is one of the most important home-garden crops, and with moderate care one of the easiest to raise. It is exceptionally important to procure good, clean, healthy seed. If possible get certified seed, for then you have double assurance of its being disease-free and of high vitality. In preparing seed potatoes for planting, it is wise to treat them with bichloride of mercury as an added protection against disease. Obtain the bichloride of mercury from the drug store and make up a 1 to 1,000 solution according to the directions of the druggist. Soak the seed potatoes in this solution for 1 1/2 hours, spread them out to dry, and then cut them into pieces having at least one good eye and preferably two. Do not be afraid of cutting too large pieces, for a much higher yield results
from large seed pieces. The seed pieces should weigh from 1 to 2 ounces and be as large as a hen's egg. Plant as soon as possible after cutting, for the seed pieces will dry out and lose vitality. Have the soil well prepared and very moist before planting, since irrigation before the young plants show above ground often causes the seed to rot in the ground.

Cultivate deeply at first to drive the roots down; but as the plants grow larger, gradually reduce the depth until very shallow cultivation is reached about the time of blossoming when it should cease. Keep a fairly high moisture content in the soil until the potatoes are full-sized and almost mature.

Harvesting potatoes should begin as soon as they are mature. If the skin is tight to the potatoes and well colored, they are ready to dig. In digging use great care not to cut or bruise the potatoes, since diseases causing rot begin with such injury. Allow the potatoes to lie on the ground for an hour or two after digging until the skin "sets." If this is done the skin will be tough and will not scale or peel off. A very good plan is to sort the potatoes at digging time by first picking up only the clean, well-formed, and well-sized ones, afterwards making a second picking to harvest the balance. This saves handling the crop more than once and eliminates a great deal of bruising.

If storage of potatoes is desired, the best way is to put down a layer of straw and then a layer of potatoes and cover the whole pile with a good thick layer of straw. This should be located where no rain or direct sunlight can get to it. For storing only a month or so, leave the potatoes in the sacks in a cool, dry place such as the barn or the cellar.

ROOT CROPS

Radishes, turnips, carrots, parsnips, horse-radish, and beets come under this heading, as they all require the same kind of care.

The seedbed should be worked down to a fine mulch, and should have plenty of moisture and fertility. The seeds must be sown where the plants are to grow and when they come up must be thinned to the proper distance. After this a moderate amount of cultivation and irrigation will bring them to maturity.

In harvesting, the plants should be pulled as soon as the proper size is reached. Be careful in pulling them to leave the smaller plants so that they may mature later. If they are to be sold it is best to wash them well, grade to uniform size, and have them tied in attractive bunches.

In order to have a continuous supply of root crops in the garden, it is wise to plant only a short row at a time, every 10 days to 3 weeks. This applies to all the root crops with the exception of parsnips and horse-radish.
SPINACH

Spinach is one of the best table vegetables. Doctors and dietitians advise us to eat it freely because of its health-giving properties. No home garden should be without it. It is easy to raise and does well on all kinds of soil with a very small amount of irrigation and only moderate attention.

Spinach may be sown broadcast in beds or planted in rows. For the home garden a very good plan is to make ridges that are from 8 to 10 inches wide on top and then broadcast the spinach on top of these. Begin to thin as soon as the plants are large enough to be used as “greens”. This will allow a continuous supply for several weeks. If spinach is grown in single rows, thinning to 2 or 3 inches apart in the row is best. As with lettuce, it is best to keep the seedbed moist to within a half-inch of the surface until the plants are well started. After that less irrigation is necessary. Keep the weeds down and cultivate occasionally until the spinach is ready to cut for use.

Harvesting spinach consists of cutting off the plant at the surface of the ground, stripping off the old, dirty, and discolored, outer leaves, and either tying the plants in bunches or just placing them loose in baskets. If the plants are spattered with mud or dirt, it is very easy to wash them off by rinsing in running water or in a tub of water.

SWEET POTATOES

Arizona is especially adapted to growing sweet potatoes and a good crop can be secured with moderate care. Sandy soil always gives the best results, but sweet potatoes can be grown on any type of soil. For the home garden the best policy is to purchase the slips from a commercial grower or a seed-house as it is too expensive and troublesome to raise slips for a small planting.

In preparing the soil for sweet potatoes, do not plow deeply as it induces long root growth and the potatoes will be long and slender. Plow to a shallow depth and throw up rather high ridges. When you are ready to plant, run the furrows full of water and plant in the mud at the water-line with a trowel or by hand. Keep the soil wet until the young plants have taken hold and are growing nicely. Cultivate until the vines begin to interfere; then cease entirely. It has been found that pruning or disturbing the vines will materially lessen the yield. As soon as the potatoes are well formed, stop irrigating and allow the crop to remain in the ground until the tops die down. The potatoes are then plowed out as in the case of Irish potatoes and placed in ventilated crates or boxes. If the potatoes are to be kept through the winter, they should be cured properly before storing. This is done by keeping them at a temperature of 80-85°F for 10 to 15 days until the skin sets and the potato
SUMMER AND WINTER GARDEN CLUB

is firm and dry. Good ventilation is very necessary throughout the curing period as the potatoes sweat to a marked extent. Store at not less than 50° F. in ventilated crates or boxes.

TOMATOES

Tomatoes do well in Arizona, but care must be taken not to grow them on the same plot of ground year after year. This precaution is necessary on account of the wilt disease which lives over in the soil.

Either tomatoes are grown in a hotbed and transplanted, or the seeds are planted in hills in the fields. If grown in the hotbed they should be planted at least 6 weeks prior to setting time. The hotbed should be constructed so that it can be covered to protect against frost. Barley sacks, canvas, and the like are very effective. The plants should be healthy and stocky and at least 6 inches tall when they are transplanted to the field. Dig them up carefully so as not to injure the roots and plant with the same care as in the case of sweet potatoes following the same directions. When grown directly in the field from seed, the ridges should be thrown up and the seeds planted in hills where the tomatoes are to grow. As soon as they are up and growing well, thin to two or three plants. This will allow for one or two to be killed by wilt disease.

Moderate cultivation and a moderate amount of irrigation are necessary for the best results. It is a good plan to keep the vines on the ridge, thus preventing them from getting wet, as water causes the tomatoes to rot and induces disease on the vine. In the northern part of the State tomatoes can be trained to stakes or trellises which allow ease of picking and also keep the fruit from the ground. This is not advisable in the southern and lower sections, for the intense heat of the sun causes scalding and burning of the fruit. The more shade the better is the rule for the warmer sections.

Tomatoes should be harvested as soon as they are well colored and must be handled carefully as they bruise easily. By picking in the cool part of the day and keeping the fruit in the shade or in a cool place, they can be kept in good condition several days.

ONIONS

Almost any type of soil that is fairly rich and easy to work is suited to the growing of onions. The seeds are planted either in a seedbed or directly to the field and thinned when well up. For the home garden the best plan is to use sets, or plant seed directly in the row. Prepare a fine mulch and sow the seed in a row about one-half of an inch deep. Keep the soil moist until the onions are well up and the tops drop over. As soon as the onions reach the size of a lead pencil, they should be
thinned to leave one plant every 4 to 6 inches in the row. The onions that are pulled out can be transplanted in the same manner as sweet potatoes.

Unless the onions are to be used for green table onions, the best plan is to allow them to remain in the field until the tops fall over and die. Carefully pull them from the soil and place in crates after twisting or cutting off the tops and roots. Store in a warm, well-ventilated place and be sure that the sun does not shine on them directly, as they burn very easily. Handle onions as little as possible for they are tender and bruises are soon followed by decay.

If you wish green onions pull the plants when the onions are the right size to eat, wash off the dirt, and trim the roots. Tie in bunches and trim the tops back to about 5 inches.
EXPENSES

RECORD OF WORK

Keep a record of all time spent at work in the garden. Begin this record with preparation of seedbed and include time spent in gathering products. Keep a record of the number of irrigations and the amount or cost of the water.

If only a few minutes are spent in the garden at a time, make record in a fraction of an hour. Value your time at 15 cents an hour, all help at 20 cents an hour, and all horse labor at 10 cents an hour per horse. If two horses are used indicate by putting a (2) after the time worked by the horse.

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<tr>
<th>Date</th>
<th>KIND OF WORK</th>
<th>TIME SPENT WORKING</th>
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Total Number of Hours
RENT

Size of my garden ________________________________ sq. ft. or rods

Estimated rent for 1 acre $ ________________________________

(See note above.)

Estimated rent of my garden $ ________________________________

NOTE: An acre contains 43,560 sq. ft. or 160 sq. rods.
RECEIPTS
FRESH VEGETABLES USED AT HOME

Record shall be made here of all fresh vegetables from the garden used at home and also vegetables given away.

The local club leader will determine method of weight or measure and also price of vegetables.

Where there is no club leader, cost of products will be determined by that in local markets.

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<tr>
<th>Date</th>
<th>KIND OF VEGETABLE</th>
<th>Quantity</th>
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When vegetables are sold outside the home, careful measure should be made and record kept of quantity sold and money received.

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<tr>
<th>Date</th>
<th>NAME OF BUYER</th>
<th>KIND OF VEGETABLE</th>
<th>Quantity</th>
<th>Value</th>
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VEGETABLES CANNED FOR HOME USE

Directions for canning vegetables will be sent on request. With the exception of such vegetables as radishes and lettuce, all others not used as fresh vegetables should be canned. The canning work is not required, however. Value of vegetables for canning use shall be determined by the market value of such produce.

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<thead>
<tr>
<th>Date</th>
<th>KIND OF VEGETABLE</th>
<th>Quarts</th>
<th>Value</th>
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</table>
GARDEN CLUB FINAL REPORT

Name ______________________ Address ______________________

From ______________________ To ______________________ 192

Dimensions of Garden ______________ Area ______________

<table>
<thead>
<tr>
<th>COST</th>
<th>RECEIPTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rent of land (5 percent on actual value)</td>
<td>Value vegetables used at home at current rates</td>
</tr>
<tr>
<td>Barnyard manure ($1.00 per two-horse load)</td>
<td>Value vegetables given away</td>
</tr>
<tr>
<td>Cost of seed and plants</td>
<td>Value vegetables canned or dried</td>
</tr>
<tr>
<td>Spray materials</td>
<td>Value vegetables stored</td>
</tr>
<tr>
<td>Value of your labor (15 cents per hour)</td>
<td>Value vegetables still in garden</td>
</tr>
<tr>
<td>Value of hired labor (20 cents per hour)</td>
<td>Miscellaneous</td>
</tr>
<tr>
<td>Value of horse labor (10 cents per hour)</td>
<td>Total Receipts</td>
</tr>
<tr>
<td>Cost of irrigation water</td>
<td>Total Expense</td>
</tr>
<tr>
<td>Miscellaneous costs</td>
<td>______________________</td>
</tr>
</tbody>
</table>

Total Expense ______________________ Net Profit ______________________

Did you exhibit at a club or community fair? ______________________

Were you a member of a demonstration or judging team? ______________________

What year of club work is this for you? ______________________

I have examined this record and believe it to be a fair statement of the above club member's activity.

Signed ______________________

LEADER

Tear off and give to your county agent or club leader after filling out.