Suggestions for Home Gardening in Boys’ and Girls’ Club Contests.

PREPARATION OF THE SOIL

The land should be plowed preferably in the fall. If land thus prepared is not available, early spring plowing will do. It should be harrowed as soon as dry enough in the spring. If plowed in the spring it should be harrowed immediately, before any lumps have time to harden. Unless the land is in very fine condition, it should be dragged after harrowing.

SEEDS AND SEEDING.

Order your seeds early. Order good seeds from reliable seedsmen, of standard varieties rather than novelties. Early varieties should be planted in most parts of the State as the growing season is short. The varieties recommended have been grown on the Station grounds at Bozeman and are adapted to most parts of the State. The amount of seed to order can be determined by consulting data given with the various crops. Usually one package or one ounce will be enough.

Plant seeds deep enough to be in moist earth. Seeds can be planted deeper in light soils than in heavy soils. Firm the soil about the seeds well. If seeds are planted with a drill, the machine will firm the soil.

TRANSPLANTING.

This should be done preferably late in the afternoon or on cloudy days. Plants taken from hotbeds and houses should be
shaded from the sun two or three days, or until they have become established. The plants should be thoroughly watered several hours before taking up and as much dirt as possible should be taken with each plant. The holes should be large enough to receive the plants without doubling or twisting the roots. If necessary, pinch the ends of the longest roots off. The ground should be firmed about the roots, and the plants should be watered thoroughly after transplanting. After the water has soaked away in field transplanting, throw a little dry dirt over the wet ground around the plants to prevent baking. Hothouse plants should be hardened off by exposing gradually to outdoor air before transplanting.

**WATERING.**

Irrigate before the ground becomes too dry. One way to test moisture conditions of the soil is to clean away the dry top soil, pick up some of the lower wet soil and squeeze in the hand. If the soil balls up it is all right; if it is crumbly and tends to fall apart, is beginning to get dry and should be irrigated. Shallow rooted ants like onions, will require water oftener than deeper rooted ants. As a general rule, irrigate thoroughly and not so often, other than often and not thoroughly. Run the water in furrows between the rows of vegetables; do not flood over the entire surface. Cultivate after each irrigation.

In crops like onions, tomatoes and peppers, which should mature before frost, the water should not be applied the latter part of the summer. This gives the plants time to mature or ripen. Cucumbers may be kept growing right up until frost. For carrots and beets, the round should not be allowed to become dry, as the pulling and sing is too hard and unsatisfactory in dry ground. Spinach and rd will be all the more tender if kept well watered until harvested.

**CULTIVATION.**

The land should be cultivated frequently during the season especially just after irrigation or a rain. This prevents the soil from baking, conserves the moisture in the soil, assists air to reach the roots, keeps out the weeds, and in general keeps the soil in better condition for plant growth.

**PEAS.**

Peas should be planted early in the spring as soon as the soil
can be put in condition. Plant in rows 18 inches apart if cultivated by hand and 30 inches apart if cultivated by horse. Seeds should be about 1 1/2 inches apart in the row and 2 or 3 inches deep. The seed required for 100 feet of drill is from 1 to 2 pints.

The pods should be picked when well filled with peas and before the peas have begun to turn hard and dry.

The varieties of peas are:
- Early: Alaska, Nott's Excelsior, Little Gem, American Wonder, Gradus.
- Second early: Abundance, Advancer, Admiral.
- Late: Potach, Everbearing, Telephone.

Of the early peas, Alaska is the most popular for canning.

**BEANS**

Snap or string beans should be planted when danger of frost is over, say the latter part of May. Plant in rows 2 or 3 inches deep, rows 18 or 30 inches apart, and seeds 1 inch apart.

The pods should be picked when tender and before the seeds get big. For every 100 feet of row use about 1 quart of seed.

Varieties: Extra Early Refugee, Red Valentine, Davis White Wax, Flageolet, Scarlet Wax, Stringless Refugee Wax.

**BEETS**

Beets should be sown in rows 1 inch deep and 18 inches apart, early in the spring. They should be thinned to about 1 to 3 inches apart. One hundred feet of row will require about 2 ounces of seed.

Varieties: Crosby Egyptian and Crimson Glove.

**CHARD**

Swiss chard is grown the same as beets. The leaves and leaf stalks are used as greens.

Variety: Lucullus.

**CARROTS**

Carrots should be planted early in the spring, as soon as the land is in good condition. They should be sown in rows about 18 inches apart and 1 1/2 inch deep, and thinned to 1 inch apart after they have become fairly established. The seed required is about 1 1/2 ounce to 100 feet of drill.

Varieties: Oxheart, Chantenay, Danvers Half Long.
CAULIFLOWER.

Cauliflower should be started in boxes in the house or hotbed. The seed should be sown in rows about 1 inch apart and 1-2 inch deep. When the third or fourth leaves are well started the plants should be transplanted 2 inches apart. Several days before setting out in the field the gardener should begin to harden his plants off. When freezing weather has passed the plants are set out in rows about 30 inches apart and about 18 inches apart in the row. When the heads begin to form, some of the leaves of the plant should be brought together over the head and tied with string. One-third of an ounce of seed is required to 100 feet of row; 1 ounce to 2500 plants. Varieties: E. Erfurt and Snowball.

CUCUMBERS.

Cucumbers should be planted when danger of frost is over in hills 4 feet apart each way. Six to eight seeds should be planted 1-2 inch deep in each hill. If all the seeds grow the plants can be thinned, leaving 2 or 3 in a hill. For fertilizing cucumbers, better results will be obtained if a shovel of well rotted manure can be thoroughly mixed with the soil in the hill. The fruits may be picked when they are small, 1-2 to 2 inches for pickles, or when 5 or 6 inches long for slicing. They should be picked before turning white or yellow. For best results pick daily. The seed required is from 1 to 2 ounces for 100 hills. Varieties: Davis Perfect, Long Green, for slicing; Short Green for pickles and slicing.

ONIONS.

Onion seed should be planted as early as possible in the spring in drills 14 inches apart and should be covered about 1-2 to 1 inch deep. After the onions are up they should be thinned to about 2 inches apart. About 1-2 ounce of seed will be required for every 100 feet of row. Onions may also be raised from sets planted 2 or 3 inches apart and about 1-2 or 2 inches deep. Varieties: Large Red Weathersfield; Yellow Globe; Danvers, Australian Brown, Southport White, Globe or Cracker.

PEPPERS.

The culture of peppers is about the same as for tomatoes. Dis-
stances for planting are: rows 30 inches apart, plants 18 inches apart in the row. The seed required is 1 ounce to 1000 plants.

Varieties: Ruby King (large, sweet), Red Chili (small, hot).

SPINACH.

Spinach should be planted early in the spring in rows 14 inches apart. The plants should be thinned to 4 or 6 inches apart. The leaves may be picked when they have reached the most convenient size or the entire plant may be pulled. Seed required: one ounce to 100 feet of drill.

Variety: New Zealand.

TOMATOES.

Tomatoes should be started in boxes in the house or hotbeds about March 1st. The seed should be sown in shallow rows about 1 inch apart and about 1-4 inch deep. When the first true leaf is well started, they should be transplanted into other boxes 2 inches apart. When they begin to crowd they should be transplanted 3 or 4 inches apart, or into 3 or 4-inch pots, strawberry boxes or tin cans. These will permit transplanting into the field without greatly disturbing the root system. Harden the plants before setting in the field. Set out in field, after danger of frost is past, 3 feet apart each way. If they are to be pruned to single stems, and staked, they may be set 18 inches apart. In pruning to a single stem, pinch off all side branches (not blossoms) when they appear. Tie to stakes with string or cloth tightly around the stake and loosely about the plant. Stakes should be 5 or 6 feet long. The seed required is 1 ounce to 1500 plants.

Varieties: Earliana, Bonny Best, Chalks Early Jewel.
GARDEN PLAN.

The accompanying plan of a garden is merely a suggestion and the dimensions were arbitrarily chosen. The young gardener will need to adjust the planting according to the shape of his garden, the amount of land to be devoted to each vegetable, and method of cultivation, whether by hand or by horse. As far as possible, vegetables requiring the same distance apart in rows, and plants of the same season should be planted in adjacent plots. This will make the work easier. If desirable, more than one vegetable may be planted on the same row, if the vegetables so grown require similar distances from adjoining rows.

1-10 Acre—4356 Square Feet.

100 feet.

<table>
<thead>
<tr>
<th>Crop</th>
<th>Length</th>
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<tbody>
<tr>
<td>2 rows early peas</td>
<td>43½ ft</td>
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<tr>
<td>1 row cucumbers</td>
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</tr>
<tr>
<td>2 rows medium peas</td>
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<tr>
<td>1 row tomatoes</td>
<td></td>
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<tr>
<td>1 row late peas</td>
<td></td>
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<tr>
<td>1 row beets</td>
<td></td>
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<tr>
<td>1 row carrots</td>
<td></td>
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<tr>
<td>1 row onions</td>
<td></td>
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<tr>
<td>1 row cauliflower</td>
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<tr>
<td>1 row chard</td>
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<td>1 row spinach</td>
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<tr>
<td>1 row beans</td>
<td></td>
</tr>
<tr>
<td>1 row peppers</td>
<td></td>
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</tbody>
</table>

I5 rows 35 inches apart.

Rows may be spaced equally for horse cultivation or varied from 16 to 48 inches apart, according to space required for different plants.

REPORT RESULTS TO MISS AUGUSTA EVANS, BOZEMAN, MONT. leader of Boys' and Girls' Clubs, cooperating with Bureau of Plant Industry, U. S. Department of Agriculture.