

# More Attractive Homes Club I

## The Home Grounds

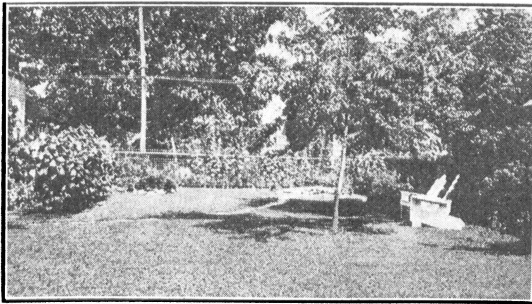
4-H CLUB CIRCULAR 42

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### COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED  
STATES DEPARTMENT OF AGRICULTURE COOPERATING

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## TABLE OF CONTENTS

	Page
Introduction .....	3
Requirements .....	4
I. Organization of Home Grounds Club .....	4
Suggested Programs for Meetings .....	5
II. First Necessary Changes in Ground .....	7
Drawing Plans .....	7
Removal of Rubbish and Equipment .....	7
Caring for the Lawn .....	9
Repairs .....	9
Painting .....	9
Walks and Drives .....	10
III. Natural Landscaping of Home Grounds .....	11
IV. Transplanting Trees and Shrubs .....	12
Trees .....	12
Shrubs .....	13
V. Trip to the Woods .....	15
VI. Flowers, Shrubs and Vines .....	15
Flowers .....	15
Arranging Flowers .....	16
Shrubs .....	20
Vines .....	20
VII. Tour to Visit Yards .....	21
VIII. Flower Show .....	21
Score Cards .....	22
Judging .....	22
IX. Propagation of Plants .....	24
Shrubs .....	24
Perennials .....	25
X. Preparing for Winter .....	26
Seed for Next Year .....	26
Storing Bulbs .....	26
Planting Bulbs .....	26
Fall Care of Plants .....	27
Demonstrations .....	27
Suggested Subjects .....	28
Outline for Demonstration .....	28

# More Attractive Homes Club I

## The Home Grounds\*



Fig. 1.—An outdoor living room on a Missouri farm, with lily pool and bird bath as points of interest.

The object of the home grounds club is to foster appreciation of and pride in the home; to provide an opportunity to learn the principles and practices of landscaping the average farm grounds; to insure an acquaintance with the native flowers, shrubs and trees as well as others and the possibilities of their use in making home grounds attractive; to cultivate a love for and an enjoyment of flowers, shrubs and trees by working with them; to improve the appearance of the home grounds for the greater pleasure and satisfaction of the residents and the passers-by; to teach cut-flower combinations and arrangement; and to cultivate the pleasure of sharing flowers.

\*Prepared by Miss Julia Rocheford, More Attractive Homes Specialist, in collaboration with Miss Jane Hinote, State Club Agent.

## REQUIREMENTS

There shall be five or more members in the Home Grounds Club who are from 14 to 21 years of age, and who meet regularly, with their own officers in charge, under the direction of a local leader.

**Work Required.**—Each club member is required to make a plan of the home grounds before work is started and another one after all changes are made; to get at least three nursery catalogues; to put the farm yard in order; to transplant and grow four varieties of wild flowers; to transplant and grow three native shrubs, small trees or vines; to do at least six of the following:

1. Grow 10 different annuals; 4 different perennials; a few dahlias; a few gladioluses; a few tulips; and a bowl of bulbs or a house plant for winter.
2. Plant and grow 4 shrubs at the foundation or to screen an unsightly view or object.
3. Propagate three different shrubs making 10 cuttings of each.
4. Start a small nursery.
5. Keep the lawn mowed.
6. Lay a flag stone walk.
7. Submit kodak pictures showing the grounds before and after changes are made.
8. Participate in a flower show.

**Records Required.**—A record book is furnished by the Extension Service of the Missouri College of Agriculture and in this each member is required to record the cost of improvements made, the time spent in working on the grounds and the story of the club work for the year.

**Expense.**—Each member is required to provide all materials used in making improvements in his home grounds.

**Time Required.**—The time required is for attendance at six or more club meetings; for time spent in actual work on grounds in making changes and plantings as planned; for attendance on a tour, and at a flower show and for an achievement program when the project is completed.

**Organization.**—The Home Grounds Club should be organized in December or January, work started by February 1st, and completed by November 15.

### I. ORGANIZATION OF HOME GROUNDS CLUB

Standard clubs are required to hold at least six regular meetings during the club year. These meetings may be held as often as the local club leader and the members desire, however, the meetings usually are held once a month or every two weeks. It may be necessary to devote two or more meetings to some of the subjects. It is suggested that these

subjects be followed in the order named. Local club leaders and clubs are expected to adapt these subjects to local community conditions.

### SUGGESTED PROGRAMS FOR MEETINGS

- I. **Organization of the Club.**—(See Club Secretary's Record Book.)
  1. Business Meeting.—The local club leader in charge.
    - (1). Explanation of the duties of the club officers and members (See Club Secretary's Record Book.)
    - (2). Election of officers from the membership of the club: President, Vice-President, Secretary, Song Leader and Reporter.
    - (3). Selection of name of club and time and place for meeting.
    - (4). Appointment of program committee.
    - (5). Adjournment of the business meeting for project instruction.
  2. Discussion.—The local leader in charge.
    - (1). Distribution of club literature and the record books.
    - (2). Explanation of standard club and project requirements.
    - (3). Discussion of the main club events of the year.
    - (4). Setting of one or more goals for the club such as: Every member attend every meeting of the club. Every member complete the project and take part in the tour and flower show.
    - (5). Assignment for the next meeting. Bring catalogues. Assign topic for roll call: "My reason for joining the club."
  3. Social hour. (See Recreational Activities for 4-H Clubs.)
- II. **Club Meeting.**—First Necessary Changes in Grounds (February).
  1. Business meeting.—The club president in charge.
    - (1). Meeting called to order by president who leads the club members in repeating the National 4-H Pledge as follows: "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."
    - (2). Roll call.
    - (3). Reading of the minutes of the last meeting by the secretary.
    - (4). Unfinished business.
    - (5). New business.
    - (6). Songs
    - (7). Adjournment for work
  2. Discussion and demonstrations The local leader in charge  
Orderliness and neatness, repairs, paint. Native trees, shrubs and flowers available. Explanation and demonstration of plan of grounds. Study catalogues.  
Assignment of work.—Put grounds in order. Bring plan of grounds. Bring list of shrubs, considered desirable from study of catalogue. Bring record books to the meeting. Bring kodak pictures, if possible, showing house and grounds. Assign topic for roll call: "What I have done to improve grounds."
  3. Social hour.
- III. **Club Meeting.**—Natural Landscaping of Home Grounds (March).
  1. Business meeting (Follow suggested outline for club meeting II).
  2. Discussion and demonstrations. The local leader in charge.  
Natural landscaping. Each ground plan and the changes to be made.  
Assignment of work: Make any needed repairs, if possible. Bring any seeds, bulbs or shrubs to exchange. Make a list of flowers considered desirable from study of catalogue. Assign topic for roll call: "Accomplishments since last meeting."
  3. Social hour.
- IV. **Club Meeting.**—Transplanting Trees and Shrubs (April).
  1. Business Meeting.
  2. Discussion and demonstrations. The local leader in charge.  
Transplanting. Grouping shrubs and flowers. Planning trip to woods.  
Assignment of work: Prepare soil for flowers and shrubs. Bring list of flowers, shrubs and vines that will be used. Plan definitely for plantings.

Assign topic for roll call: "Repairs I have made."

3. Social hour.

V. **Trip to Woods** (April).

VI. **Club Meeting.—Flowers, Shrubs and Vines** (April-May).

1. Business Meeting.

2. Discussion and demonstrations. The local leader in charge.

Flowers, shrubs and vines. Cutting and arranging flowers. Planting a small tree or shrub. Planning tour to visit yards. Planning flower show. Assignment of work: Bring record books for examination. Bring any plants to exchange. Assign topic for roll call: "Difficulties I have met and how I overcame them."

3. Social hour.

VII. **Tour to Visit Yards** (June-July).

Suggested Procedure.

1. Each club member when visited tells what has been accomplished.

2. Informal discussion of the good points and suggestions for further improvement.

3. Talk on club's achievement by a club member, by the local leader or by the county agent.

VIII. **Flower Show** (According to season).

1. The show should be held at some central place, in a building or tent large enough to accommodate a crowd without crowding the exhibits.

2. The aisles should be wide and the crowd kept moving in the same direction.

3. There should be plenty of table space for the exhibits so they will not appear crowded.

4. Classes open to club members only.

IX. **Club Meeting.—Propagation of Plants** (September-October).

1. Business Meeting.

2. Discussion and demonstrations. The local leader in charge.

Propagation of shrubs and perennials. Making hard and soft wood cuttings. Layering. Dividing perennials. Examination of notebooks.

Assignment of work: Start 10 cuttings of one shrub. Divide two perennials. Bring any plant for exchange. Assign topic for roll call: "My plans for next year's garden."

3. Social hour.

X. **Club Meeting.—Preparing for Winter** (October-November).

1. Business Meeting.

2. Discussion and demonstrations. The local leader in charge.

Storing bulbs. Putting the plants to bed. Seed for next year. Planting tulips. Starting bulbs for winter blossom. Work for next year.

3. Social hour.

XI. **Club Meeting. The Achievement Program.**

The achievement program should be held at the close of the work for the club year. Each member should hand in to the local club leader the completed record books so that the results of all the work of the club may be summarized in the back of the Secretary's Record Book.

**Suggested Program**

1. Typical club meeting. Each member should respond to roll call by giving a summary of her club work.

2. Talk on club's achievements by a club member, the local leader, or the extension agent.

3. Team demonstrations.

4. Awards. Each member who completes the work is eligible to receive a 4-H club achievement pin, if given.

5. Plans for club work for the next year.

**Suggestions**

Only club members who make a complete report or have their records up-to-date should be eligible to take part in county, district, state, inter-state, or national contests, club camps or take achievement trips.

The tour of the homes, the flower show, and the results of the club work for the year should be carefully prepared and offered to the local newspapers for publication.

## II. FIRST NECESSARY CHANGES IN GROUNDS

Beauty is as necessary to the full enjoyment of life as is sunshine and air, and one's home should provide this in satisfying proportions. The logical place to begin to work toward beauty in the home seems to be the yard, since nature will be a silent but efficient assistant.

The boys and girls may not be partners in the business of the farm and home, but they can share equally in the beauty of the place. Each one has his own yard, a potential beauty spot if properly cared for and maintained. The task of making the home grounds more attractive is not a costly nor a difficult one, but one that returns rich rewards in the way of happiness and contentment known only to the person, who, as he cultivates the plant in the soil, cultivates that love of beauty that is inherent in him. The fact that the property occupied is not then owned by the occupants is no reason why they should be deprived of beauty during the period in which ownership is anticipated.

The first step in beginning this work is to send to seed and nursery companies for their catalogues. These usually encourage a desire to begin plantings, and they frequently contain plans for ground improvement along with useful suggestions on plantings, care of plants and color combinations.

### Drawing Plans

The points of the compass should be shown by an arrow at one side pointing north. If the yard is a large one it is advisable in drawing the outline of the grounds to allow 16 feet to the inch. For measuring the size of the yard, a long measuring tape should be used, or if this is not on hand, a stout cord with a knot tied every eight or sixteen feet. After the outline is drawn, the house should be located correctly and its exact lines given, porches with steps, windows and doors, being shown.

All permanent features such as outbuildings, shade trees, drives, walks and gates should be accurately located. In locating these, two measurements should be taken, one from the side, and the other from the end of the yard. The plan of the grounds before and after improvements should tell the story of a season's work.

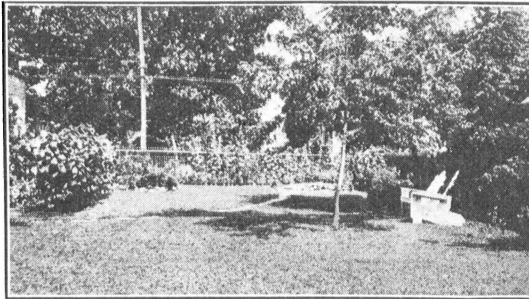
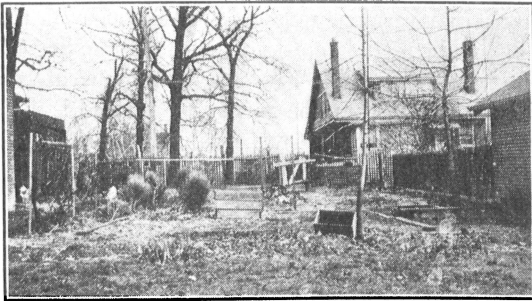
It is wise to make a plan of the home grounds as the club member would like to have it, as this may become a goal toward which to work.

### Removal of Rubbish and Equipment

The second step should be to put the grounds in order, since this must be done before any successful attempt at beautification can be made.

The first thing to do in this is to take everything that does not belong in the yard out of it. The livestock, including chickens, should be excluded, since a good lawn cannot be kept if these range on it. The

chickens should have a yard surrounded by a chicken-tight fence and the chicken coops should be placed within this enclosure, or, at least, the chickens should be fenced out of the door yard, both for sanitary and aesthetic reasons. All equipment, such as pieces of farm machinery, do not add to the appearance of the grounds and should be removed. Automobile casings, cans, lids, pieces of boards, and all such rubbish are unattractive and the yard should be cleared of them. Rock flower



Figs. 2 and 3.—A back yard before and after the making of inexpensive improvements.

beds and clumps of shrubbery and flowers scattered over the yard make it look smaller and interfere with keeping the grass mowed, so these should be disposed of and the flowers and shrubbery planted elsewhere. The back part of the yard is the service portion of the yard and is the place where all work should be carried on, so the clothes line should be taken from the trees in the front and side of the yard, if there, and put in the back yard. Posts should be set to which the clothes line can be fastened. This will save steps for the home-maker, keep the worker from



sight of persons passing by and improve the appearance of the place. The grindstone and other similar equipment should be placed in the back yard.

### **Caring for the Lawn**

After the rubbish has been removed, the yard, if sufficiently dry, should be raked with an iron-toothed rake. This will not only remove dead grass, leaves and bits of rubbish, but will be beneficial to the grass. Rolling the ground in early spring will press the crowns of the grass firmly in the soil, as well as help to make a smooth surface. The lawn should be kept free of weeds at all times and be mowed about every ten days throughout the spring and early summer. Bare spots should be raked and then reseeded to grass, hummocks smoothed out and low places filled.

Blue grass is the best foundation for lawns in Missouri. However, it is usually not sown alone, for the reason that when young it needs protection. For general lawns about the home grounds a good proportion is seven parts of bluegrass, three parts of English perennial rye grass, three parts of redtop and one part of white clover. English rye is used only in unusual shade or in damp soils.

### **Repairs**

The house, outbuildings, and fences should all be kept in good repair. Broken front steps and a porch open beneath, do not make an inviting entrance. A new plank or two for the steps, and some lattice work underneath the porch will change the appearance of the entire front. A replaced board in an outbuilding, or a new hinge for its door, will cost little, but will take away the run-down appearance of the building. Fence posts that are bent or broken, with their sagging gates, detract from the appearance of any place. Some spare time and a little outlay of money will remedy this.

### **Painting**

Paint will not only preserve the wood in the dwelling and outbuildings, but add much to the attractiveness of the place. A very light color such as ivory, creamy white or white is best for farm houses, which, with their settings of green, appear cooler and cleaner when so painted. (Red and sky blue are colors to be avoided in outside painting.) The outbuildings should be the same color as the dwelling, since all are a part of the same unit. One should not paint the barn red and the house white. If the house is white, whitewash may be used for outbuildings, making them look better than if left without either paint or whitewash. Also, fences whitewashed or painted, if of plank, look much more attractive. If the house is painted cream or ivory, the whitewash used on the outbuildings may be tinted.

Whitewash may be made by slaking one bushel of lime with twelve gallons of warm water. Then two gallons of boiling water should be combined with two pounds of salt and one pound of sulphate of zinc. This should be well stirred and poured into the lime mixture. Lastly, two gallons of skimmed milk should be added.

### Walks and Drives

Walks and drives may not add to the attractiveness of a place but they are absolutely necessary. Therefore, they should be made as inconspicuous as possible, and lead directly to their destination. If possible to prevent it, neither walks nor drive should cut across the open lawn. The drive usually serves to connect both house and barnyard with the

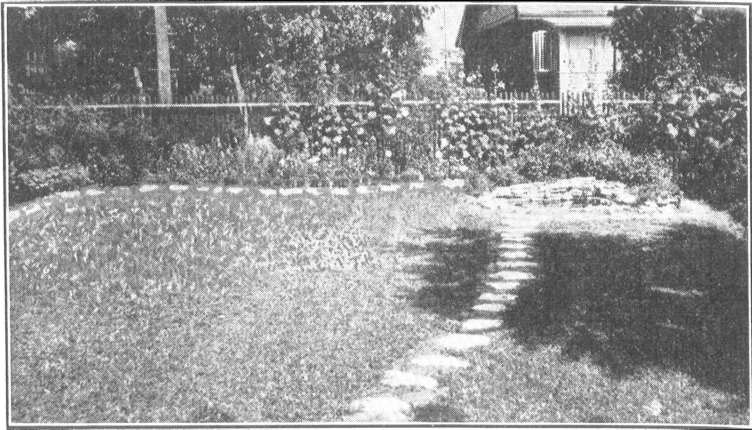


Fig. 4.—Flat stones may be used for constructing walks.

road, so the best location seems to be at one side of the yard. Walks and roads that are located near a building should be parallel to the sides of the building. When a walk starts or ends at a building, it should do so at right angles not at an acute angle. Curves in both walks and drives, if well proportioned, add attractiveness, but neither should be curved without a reason, either natural or artificial. Flat stones may be used for the construction of walks. They are cheaper, more attractive and easier for boys and girls to construct. They should be made flush with the surface of the lawn so as not to interfere with mowing.

### III. NATURAL LANDSCAPING OF HOME GROUNDS

Every yard should be a picture, and every good picture is the result of arranging the component parts of the picture. The first requisite in the composition of a pleasing picture presented by a yard is unity, that is, one idea should prevail in its preparation, and every improvement should contribute to this idea. Unity is the relation of all parts of a plan to form a whole which is a pleasing composition. It involves form, proportion, arrangement, color and texture in design and materials. Unity will not result unless one person controls all changes and has a very definite mental picture of the finished product. This is more apt to be achieved if a definite plan is made on paper and adhered to strictly.

There are two generally recognized styles of landscape gardening, the natural or informal and the artificial or formal. The natural style should be followed in all farm ground improvements. Naturalness is often lost by the use of straight lines and artificial lawn vases, geometrical flower beds in open yard and unsightly summer houses. Unity will be destroyed by the use of these.

An open lawn is a necessary foundation for natural landscaping. It should be large enough not to appear crowded with buildings and trees, and should have an open center except for a few shade trees and the dwelling.

Variety is another requisite of good landscaping and is possible through a number of factors. For example, the surface may provide variety by being broken or by sloping. It may be achieved by curves of drives, walks and border plantings; by partial concealment of dwelling and out-buildings; by a diversified skyline; by contrast of color, in spring, summer and fall; by a difference in shape, foliage and character of growth of trees and shrubs. Variety may result from using both the groupings of plantings and single specimens.

The grounds should also show the individual touch of the person who planned them and be free of all inappropriate objects such as concrete urns, broken rocks, whitewashed rocks or tree trunks, trees peculiar in shape and form of growth and similar things.

And finally, the finished product must be carefully maintained for the best effect. The lawn must be kept mowed and raked, plants cultivated, crowded ones thinned out, shrubs pruned, when necessary, dead blossoms removed and other duties performed in order that the finished product may be creditable.

Frequent cutting, rolling and raking will get rid of annual weeds, while perennial ones, such as dandelions and plantain must be dug out root and all, by hand.

#### IV. TRANSPLANTING TREES AND SHRUBS

##### Trees

The chief function of trees is to provide shade, but in addition, they should appear to shelter the home and to form a frame for the picture made by the house and outbuildings when viewed from the highway. The house should have as a background a few tall trees to break the sky-line.

Shade trees should not be planted directly in front of the dwelling, but at the sides or diagonally in line with the corners. They should be grouped as found in nature, not planted in straight rows, except when parallel to a drive or across the front yard next to a highway, or providing a windbreak, as this results in a stiff, inartistic appearance, not in keeping with a farmstead. They should be planted 30 feet apart except when in groups, then 10 or 15 feet apart. Too many shade trees will prevent a good growth of grass, shrubs and flowers and may cause a musty odor in the house by shutting out the sunshine and air which is so much needed.

Native hardwood trees such as the oak, American elm, hard maple and hackberry are best for permanent shade. Neither box-elder or red elm should be used, but the soft maple, the poplar, and similar trees of rapid growth may be used for temporary shade but should be removed as soon as others have made sufficient growth for shade. The unusual or peculiar in tree or shrub is out of place in the farm yard. The greatest offenders in this line are the weeping willow, weeping mulberry and the umbrella catalpa.

Transplanting small trees, not over four inches in diameter, from the woods may be done successfully if care is used in digging so as not to break too much of the root system, leaving as much earth as possible on the roots and keeping the root system wrapped in wet burlap until the tree is planted. Root pruning with a sharp spade a year or two previous to the transplanting will lessen failure. Nursery material is more easily transplanted, but one should not incur that expense, nor forego the pleasure of a trip to the woods, unless something unsurmountable prevents. Trees should be selected from a similar location to the one they are to occupy. Oak trees are so difficult to transplant that only very small ones should be dug. In most cases a good growth can be obtained by planting several acorns in the fall and covering with an inch of dirt and a mound of leaves.

Some of the causes of failure in transplanting trees are: insufficient fibrous roots, failure to prune off broken roots; not pruning the top sufficiently; not digging the hole large enough thereby cramping the root system; not pulverizing and enriching the soil that is used for

covering the roots; not settling this soil firmly around the roots with plenty of water; not tamping so as to exclude air pockets and then covering with about two inches of dry soil; not planting early enough, preferably before April 1st; and finally not keeping the trees well watered and cultivated the first summer.

### Shrubs

If shrubs are moved when dormant, reasonable success may be expected whether the time of moving is in the fall or spring. If there is plenty of moisture in the soil the longer the plant is in its new location before hot weather begins the greater the chances are for it to live and thrive.

The first requisite in successful transplanting is good digging; that is, getting out the root system with the least possible amount of bruising and breaking. This may be accomplished by starting the digging at some distance from the plant, and using the spade for prying gently, as well as for digging. Digging completely around the plant before starting to pry will aid in protecting the roots from too much breaking. Some of the smaller roots will always be lost no matter how carefully they are dug. All broken roots should be cut off with a sharp knife.

If native shrubs are to be transplanted it is advisable to select small plants since the root systems of the larger ones are so extensive that it is difficult to get them without breaking too many of the main feeders. Before beginning to transplant, all broken and decayed branches should be removed. Usually about one-half of the previous season's growth of wood should be cut out but this pruning should be in proportion to the root loss in digging.

Enough soil should be left clinging to the roots to prevent their drying out before being set in their new location. Unless they are to be set immediately, the tops as well as the roots should be covered so as to exclude the air, conserve the moisture and prevent drying in the sun and wind.

A hole should be dug sufficiently large to accommodate all the roots without cramping them, and deep enough so that about three inches of rich soil can be placed at the bottom of the hole, and the plant still stand at the same depth as before. The top soil that is removed in digging the hole should be well pulverized and used for covering the roots when the plant is set. The soil should be medium, neither wet enough to be soggy nor too dry to cling to the roots and exclude the air.

The shrub should be set in its new location at the same depth as it was in its former one. If planted at the foundation, it should be set at a distance equal to half of its diameter when grown. The roots should be straightened out in their natural position, after which the finely pulverized top soil should be put in until the roots are completely covered,

Enough water should be poured in to cause this pulverized soil to settle around the roots. Dry soil should then be placed over the moist soil and all of it well firmed down so as to bring the plant food in close contact with the roots and to exclude all air pockets. Fine dry soil for a top layer will prevent the drying out of the soil in contact with the roots.

Continuous growth depends upon a sufficient amount of moisture in the soil. This may be conserved by frequent and shallow cultivation. It may be necessary to keep the transplanted shrub watered its first season of growth in its new location, for the top growth may be too rapid for the supply of plant food provided by the roots.

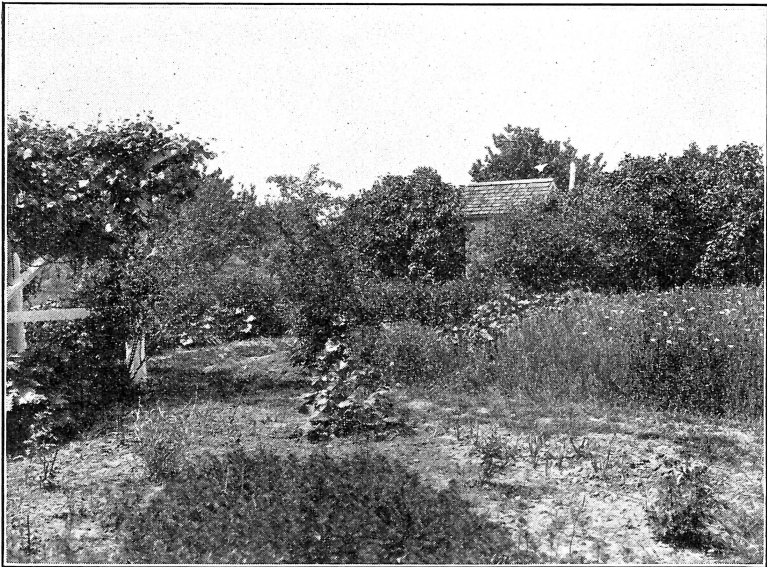


Fig. 5.—Shrubs may be used effectively in screening unsightly buildings.

In watering, the roots should be well soaked, not just the surface soil sprinkled. The top soil should be kept stirred to prevent evaporation, but the roots should not be disturbed. The surface soil should be kept free from cracks, from caking and from grass and weeds, especially during the first season's growth in the new location.

Some of the main causes of failure in successfully transplanting shrubs are (1) drying out of the root system, (2) more moisture passing from the tops even though bare of leaves than the crippled root system in new surroundings can supply, (3) a root system not well anchored, with alternate freezing and thawing, thus breaking the roots, (4) and too vigorous top growth to be well supplied with plant food, by a root system not well established.

## V. TRIP TO THE WOODS

### VI. FLOWERS, SHRUBS AND VINES

Missouri has an abundance of wild shrubs, flowers and vines that can be used advantageously for planting the home grounds. They are just as attractive and more hardy than nursery stock and cost only time and labor to transplant them. An interesting planting could be made from the list which follows:

Among the tall shrubs and small trees that are desirable are the sumac, elder, redbud, dogwood, wild crabapple, hawthorn and black haw.

Low and medium growing ones may be selected from the wild gooseberry, wild rose, buckbush and spice wood.

Bittersweet, trumpet, wild grape, or American ivy may be used for screening unsightly objects or for shade.

The following wild flowers will add color throughout the season, columbine, phlox, verbena, aster, black-eyed Susan, goldenrod, lady-slipper, bluebell, butterfly mild weed, and Kansas gay feather.

In preparation for transplanting, the soil should be spaded to a depth of about 18 inches. It should be friable, that is, should crumble readily, have plenty of humus (decayed vegetable matter) to hold moisture, have a good supply of available plant food, and be well drained. The plantings should be kept free from weeds, cultivated once a week and after each rain. A dust mulch will conserve the moisture. At the first indication of insect pests or disease the plants should be sprayed.

#### Flowers

In making a choice of what to grow, there are four groups of flowers usually considered, annuals, biennials, perennials and bulbs.

The annuals are those that complete their life from seed to seed in one season such as marigolds, zinnias, snapdragons and cosmos. Annuals are always desirable since they produce a continuous succession of flowers throughout the season as well as a great variety in color. They do not withstand a drought well and watering them on the farm grounds is practically impossible. They appear to best advantage when grown in front of shrubs or vines.

The biennials are plants that produce a foliage growth the first season which dies down, then flowers the second season, after which the plant dies. Examples are hollyhocks, sweet williams and fox glove. Some of the biennials are very attractive and showy but not so popular as the annuals or perennials. Perennials are plants whose roots continue to live for years, but whose tops die down after the flowering season or when they have been killed by frost, such as peonies, phlox, golden glow, iris, and chrysanthemums.

Perennials are very satisfactory for the reason that they thrive with so little care, will grow in rather indifferent soil, and if carefully selected will provide flowers throughout the season. Their ability to withstand a drought makes them desirable for farm lawn planting. They are very satisfactory for permanent border plantings in front of shrubs. This border should vary from three to six feet in width and be irregular in outline.

Bulbs are plants which may be defined as large buds, grown under ground having short, thick stems with roots growing from below such as tulips, hyacinths and dahlias. Of the two classes of plants grown from bulbs, the hardy and tender, the hardy ones are the most satisfactory since they may remain in the ground from year to year and are attractive bordering shrub plantings.

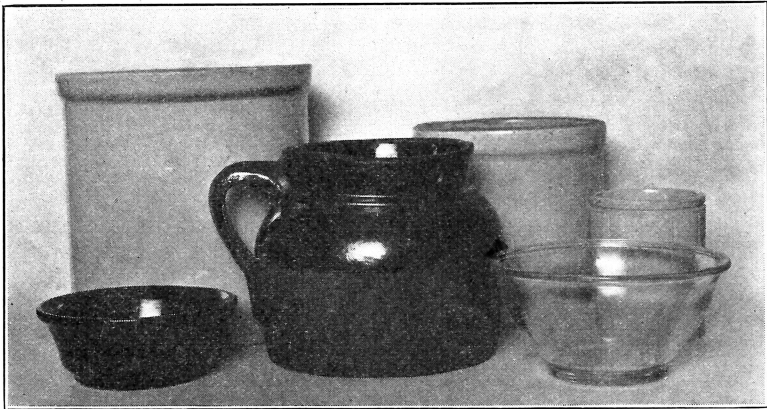
Dahlias belonging in the tender class should not be planted until all danger of frost is past which is about May 10. The clumps should be divided leaving a portion of the stem and one or two buds or "eyes", which will be found at or near the junction of the stem, with the tuber. Only one tuber should be planted in a hill, at a depth of about five inches, with the hills at least three feet apart. Dahlias need a well spaded or plowed soil, not too heavy a clay and plenty of moisture. They should be staked and kept well cultivated throughout the season. Gladioluses also of the tender class, are grown from corms which are bulb-like solid fleshy stems. These should be set about two inches apart and two inches deep, with the growing point up. A trench should first be dug, fertilizer applied and then covered with a layer of soil upon which the corms should be placed. Shallow cultivation is necessary in order to conserve moisture and prevent growth of weeds. Whatever kind of flowers is chosen, annuals, biennials, perennials or bulbs, enough of the same variety should be planted in a mass so that an outstanding color effect would result.

**Arranging Flowers.**—The best time to cut flowers is in the early morning before the heat of the sun has robbed them of part of their moisture. They should be cut with a sharp knife, or scissors, never pulled or broken since pulling or breaking tends to tear the plant cells thus preventing the best intake of water. After cutting they should be taken into the house, and immediately plunged into cool water in a deep receptacle, halfway up their stems and kept there for several hours before being arranged. Some flowers that wilt rapidly may be restored by splitting the stems a half inch or more from the lower end thus providing a greater surface for absorbing water. Others will keep better if the cells of the cut ends are contracted by dipping in hot water or a flame. This applies to flowers such as the dahlia which have a thick fleshy stem



containing much sap. Still others should be cut while in the bud stage, such as the peonies and poppies.

The container should be pleasing in outline, suitable in size and shape for the flowers, free from ornamentation, should harmonize in color, and not be too fragile nor too sturdy in appearance for the flowers. Delicate



Figs. 6 and 7.—Here are shown two groups of flower containers of pleasing design.

flowers, such as sweetpeas look well in thin glass, while coarse flowers as zinnias appear better in crockery bowls or jars. Clear, uncoated glass containers, which show the stems, are attractive for many flowers, but rather difficult to keep clear. Most flowers look well in a black, a dull green, or a tan pottery bowl or vase. Neither the container nor the

surrounding objects should vie with the flowers to attract attention. Some of the most common mistakes in arranging flowers are crowding too many in a container, using too many kinds or colors that do not harmonize, arranging them too stiffly or too symmetrically in outline and not selecting a container of the correct height and shape. A few pansies that have been squeezed into the top of a bud vase twelve inches high is an example of the last mentioned. In general, the height of the container should be from one-fourth to one-third the height of the finished arrangement; always keeping a nice proportion between size of container and completed bouquet. The darker flowers and the larger ones should be nearer the bottom to give the effect of stability but not

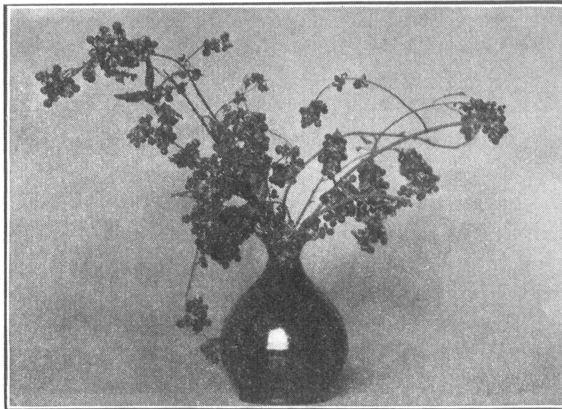


Fig. 8.—A good arrangement for iris or flowers of similar type.

arranged in rows; and the opposite sides should balance through the use of longer stems on one side, and the shorter stems but more flowers on the other. A good effect to strive for is to have the bouquet appear as nearly as possible like the growing flowers with their own foliage. Iris, tulips, jonquils and other flowers having long stems show to a good advantage standing erect in low bowls. Flower holders known as "frogs" may be made from a small square of hardware cloth by cutting small squares out of each corner and pressing the cut edges together. Glass or wire ones may be purchased, but will cost more.

The water in the container should be changed daily since it becomes stagnant, the container cleaned, and an inch or more of the flower stems cut off since the cells at the cut end become clogged. Leaves should not be allowed under water since they cause the water to become foul. Leaves are attractive showing through a clear glass container but if used, the water should be changed more frequently. The ends of the stems should not touch the bottom of the container, as this will lessen the intake of water into the stems. Also if there is a large surface of water

in the container exposed to the air, the evaporation will tend to cool the surrounding air, thus keeping the flowers fresher. Cut flowers will last longer if kept in a cool place over night and out of drafts throughout the day to prevent evaporation from taking place too rapidly.



Figs. 9 and 10.—Two examples of effective arrangements.

After learning to cultivate flowers successfully and arrange them attractively, any ambitious boy or girl who lives near a good market may earn a little spending money by the sale of flowers. Cut flowers sent to hospitals or homes in case of sickness are always appreciated.

### Shrubs

Shrubs are used for a more permanent effect than can be obtained from flowers, and will add interest to any planting, provided they are well chosen. Not more than three or four of any one kind should be planted together. With them should be planted others that differ materially in height, foliage and time of bloom. Continuous bloom from spring until fall may be had as well as interesting winter effects with berries and colorful twigs, if shrubs are selected wisely.

Shrubs may be used to frame good views; to screen unsightly objects or yard; along borders and in corners; to break the harsh outlines of the dwelling and outbuildings; and to practically obliterate the strong line of demarcation where nature's work ends and man's work begins. They may be grouped along the walls, massed at the corners and in the angles of the house, thus tending to restore the naturalness that was lost when the building was erected. The taller ones should be planted at the corners of buildings and at the back line of the border planting, with the medium and low-growing ones in front of them. The height of the house and its foundation will determine the height of the shrubs to be chosen. Tall shrubs planted by a low house with a low foundation will exclude the air and give the house a smothered appearance. All shrubs should be planted far enough out from the foundation to permit the plant to grow in towards the house as well as away from it, thus keeping its natural shape.

A good selection for planting may be made from the following list of cultivated hardy plants: hollyhock, canterbury bells, sweet william, foxglove, anchusa, butterfly bush, hibiscus, golden glow, larkspur, phlox, plume poppy, baby's breath, bleeding heart, columbine, coreopsis, corn flower, chrysanthemum, gaillardia, iris, peony, pinks, daisy, daffodil, hyacinth, snowdrops, narcissus, tulip, crocus, and hardy lilies. A choice for an interesting planting of shrubs may be made from, the tall group embracing the lilac, snowball, mock orange, highbush cranberry, weigela, forsythia and tamarix, combined with the medium and low-growing ones represented by the Japanese quince, spirea Van Houttei, Japanese barberry, spirea Thunbergii, hills of snow hydrangea, flowering almond and spirea Anthony Waterer.

### Vines

These, either native or cultivated, may be used to hide ugly outline of buildings, to screen unsightly objects, to afford privacy, or furnish shade. Hardy ones are preferable, because shade or screen is provided without waiting for stem growth. Among the vines and climbers that are desirable are the climatis, white and purple; Boston ivy; wistaria; and the roses, Dorothy Perkins, crimson rambler and thousand beauties.

## VII. TOUR TO VISIT YARDS

### VIII. FLOWER SHOW

The purpose of holding a flower show is to create as much interest and enthusiasm as possible in the community in growing flowers for the home, so the public should be invited to attend.

**Classes.**—The classes for the show will depend upon the time of year that it is held. They may be simplified, varied or combined to meet the needs of the club.

**Time.**—The show should be held at the time the greatest number of members have the maximum number of flowers in bloom.

**Eligibility.**—Members of the club group only should be eligible to compete in the show. Flowers grown by the club member may be exhibited, others barred.

**Prizes.**—These may be seeds, bulbs, perennials or shrubs, cash or just ribbons.

**Judges.**—Judges should be selected because of their knowledge of and interest in flowers. They should possess outstanding artistic tastes and be able to arrange flowers to the best advantage.

**Entries.**—Each club member may have but one entry in any one class. Each exhibit should be entered as it is brought in and given a number which is recorded in the entry record book along with the exhibitor's name. Entry cards should be provided with blanks for class and entry number only.

#### SAMPLE ENTRY CARD

Fabius Community Flower Show	
Class No.	1
Entry No.	23
Exhibitor	.....

Each exhibit should be entered in the entry record book in the class it qualifies for, giving the number of its entry, and the exhibitor's name following. The entry card to be attached to the exhibit will have the exhibitor's name omitted as shown in the sample card.

**Suggested Classification.**—The first group may be to display the perfection of the flowers and should be shown in uniform containers, and a certain number should be specified. For example, twelve individual zinnia blooms, or five peony blooms.

Group II might include the artistic arrangement of flowers, which would include the container. For example, artistic arrangement of dahlias or any garden flower.

Group III might include table decorations alone, and should be displayed on a table either a dining table with equipment or a living room table, necessitating two classes.

Any entry not up to standard should not be awarded a prize even though there is no competition.

### SCORE CARDS

Cut Flowers		Flower Arrangement	
Color.....	10	Color harmony.....	25
Foliage.....	25	Quality of flowers.....	15
Stem-length and rigidity.....	25	Suitability of container.....	25
Size of flower.....	25	Individuality of arrangement.....	10
Quality of flower.....	15	Artistic effect.....	25
	100		100
Flowering Plants		Table Decoration	
Size.....	30	Artistic.....	30
Flower-quality and quantity.....	25	Appropriate.....	25
Shape—bushy and symmetrical.....	25	Color harmony.....	25
Vigor and freedom from disease and insects.....	20	Quality and quantity.....	20
	100		100

### Judging

Judging is a method of teaching standards of quality. The first step in judging is to study the score card and get clearly in mind the proportionate amount of the score.

All club members should be taught to judge; and the two best judges should then represent the club in the county contest, if one is held.

After the club members have learned to understand and use the score card in evaluating individual classifications, they are ready to

learn to judge by comparison. They are to lay aside the score card, keeping the main items of the score card and their proportionate percentages in mind, and compare the exhibits in a given class.

Four exhibits of the same kind constitute a judging class and they may be marked A, B, C, and D. The members then compare the exhibits, placing the letter that represents the best one in the space marked First, the letter representing the next best Second, etc.

PLACING CARD USED IN JUDGING CONTESTS

Placing ----- Reason -----  
 ----- Judging Contest -----  
 Contestant's Number -----  
 Class -----  
 Placings:  
 First ----- Second ----- Third ----- Fourth -----

In judging by comparison, club members should compare the exhibit placed first with the one placed second, the second with the third, and the third with the fourth. Reasons which should be given orally to the leader or judge should be given in a similar way. There is a tendency for beginners in judging to describe exhibits rather than to give comparisons. In contests, club members usually are judged on the combined results of both placings and reasons on the basis of 50 points for correct placings and 50 points for correct reasons.

In giving reasons the members may say, "I placed the class of -----  
 ----- B, C, D, A.

"I placed B over C because -----  
 -----

"I placed C over D because -----  
 -----

"I placed D over A because -----  
 -----

Give a conclusion as, "For the reasons given I placed the class of -----  
 ----- B. C. D. A." or "Therefore, I placed this class of -----  
 ----- B. C. D. A."

Usually ten minutes are allowed for placing each class, and two minutes for giving reasons on each class.

After the judging work has been completed but before the results of the contest have been announced, the judge should exhibit the classes as placed in the contest in the presence of the contestants and explain reasons for the placings made. After understanding the placings, club members will have a fact basis for showing good sportsmanship when the results are announced.

## IX. PROPAGATION OF PLANTS

### Shrubs

**Branch Cuttings.**—These should be from five to eight inches in length, and have not less than two buds or two pairs of buds. The top end of the cuttings should be about an inch above a bud to conserve the moisture around the bud until growth starts. The lower end should be cut just below a joint with a slanting cut to furnish greater space for sending out root growth. These cuttings can be made from semi-mature wood in early summer, and placed in boxes of sand with a layer of pebbles in the bottom to afford good drainage. The sand should be kept moist, and the box shaded from the sun in the middle of the day until the root system is well started.

If time does not permit the work being done in the summer, these cuttings can be made in the fall when the growth has stopped, tied in bundles and placed up-side-down in sandy, well drained soil at a depth sufficient to prevent freezing, or they may be kept in moist sand in the basement or cellar. In the spring the bundle should be taken up and the cuttings planted right side up in trenches, about four inches apart in the row, and three and one-half or four feet between the rows. One or two inches should be left above the ground. The soil should be well firmed around the cuttings. If cuttings are made in the late winter or early spring, they may be set directly in the trench for growth.

The new plants should be cultivated through a season before being put in a permanent place. Not all cuttings will live, nor does every seed that is planted germinate, so the amateur should not be discouraged if some cuttings fail.

One may easily propagate such shrubs as the deutzias, forsythias, hydrangeas, Japanese barberry, kerria, mock orange, snowball, weigelas, willows, spireas, snowberry, tamarisk, and dogwoods by starting the cutting of semi-mature wood in the summer, or the cutting may be made in the fall.

**Layering.**—The process of causing a branch to strike root and put forth shoots while still attached to the parent plant is known as layering. This method of propagation is often successful when cuttings fail.

Tip layering is accomplished by bending down a branch and covering the end with soil to induce new root and branch growth. Any shrub



with long drooping branches will lend itself to this method of propagation. Or the branch may be bent down and partially covered with earth between the end of the branch and the parent plant, and left until roots form, when it can be detached. The climbing roses, honeysuckles and snowballs are some of the plants that can readily be propagated by this method.

Mound layering may be used where a plant sends up a number of stems from the roots, and is accomplished by heaping the earth up around the stem to a depth of about ten inches. This will induce root growth up along each stem, and the following spring, the plants may be separated. If the shrub to be mound-layered is pruned back to real short stubs in the spring prior to layering, the number of shoots may be increased. The spirea, forsythias and shrubs of similar growth may be increased in this manner.

In vine layering, a branch, preferably of the previous season's growth, is stretched along a trench and either covered its entire length, or else at intervals of four or five inches with a joint exposed between the sections covered. Common ornamental vines such as five-leaf ivy and wistaria may be propagated in this manner.

Soft wood cuttings popularly called "slips" are made from the stem. The leaf area should be greatly reduced to lessen evaporation, the stems placed upright in sand and the plant kept under glass until a root system is formed. Such plants as geraniums, begonias, carnations, and foliage plants may easily be propagated by this method.

### Perennials

Seeds of perennial plants may be sowed in a box filled with light friable loam from May until August. The seeds should be covered lightly and then sprinkled. Burlap stretched on a frame and placed over the box in which the seeds are planted will protect them from the heat of the sun and conserve moisture. When the seeds have germinated, from 10 to 25 days, the cover should be removed, and when the plants begin to grow well, they should be transplanted into another box and spaced four inches apart. They should be kept well watered and growing throughout the fall, then when winter approaches, be well covered with straw or hay. This covering should remain until early spring, then be raked off, and when the ground works well, be set out in a permanent place. They should be shaded for several days if the sun shines very warm.

Many perennials will not come true if grown from seed. Among these are peonies, iris, columbines and many others. The best way to propagate these perennials, and many others, is by division. This is usually done by dividing a large clump into two or more smaller clumps,

each having good top growth supported by a thrifty root system. Most plants can be pulled apart with the fingers, others with many shoots and strong fibrous roots will need to be cut apart with a spade, while others must be carefully cut with a knife. Plants like the peony that have a large root system all intertwined, are best divided by washing away the soil and pulling the roots apart and cutting the division from the parent stem, always being careful to keep one or more buds to each division. Most perennials may be successfully divided in the spring, the peony being one outstanding exception, as it should be divided in the fall.

Many perennials can be propagated from stem cuttings or layering and by root cuttings.

## X. PREPARING FOR WINTER

### Seed For Next Year

During the summer there will be some particular plants that are unusually fine in color or size. These should be marked and the seeds permitted to mature which will be when the plants begin to shed them. For a mixture, seeds from plants of different colors should be saved. The seeds can be put into envelopes labeled as to the kind and colors and the date which will prevent planting seeds that are too old to germinate. The seeds should be sifted out from the pods and chaff, and be stored in a cool, dry place in a tin box. Enough seed of each kind should be saved to share with others the following year.

### Storing Bulbs

After the first killing frost the plants grown from tubers such as the dahlia, should be lifted out of the ground and the tops cut off, leaving from four to six inches of stems attached. The clump, with as much soil as will cling to it, should be left out to dry for several hours, then stored in a cool, dry place. The temperature should not drop below 40 degrees Fahrenheit. If the place of storage is rather dry, the clumps of tubers may be placed in a barrel and very dry sand or sawdust poured over them.

The new corms of the gladiolus are ready to dig when the foliage turns yellow. The tops should be cut, leaving about two inches attached to the corm, then a spading forl used to pry and lift the plants from the ground. The corms should be cleaned by shaking vigorously and the old one and roots should be removed from the new ones. These new corms should be placed in trays to cure after which they may be placed in paper bags and labeled for storage. A fruit cellar is an excellent storage place.

### Planting Bulbs

Bulbs demand good drainage to prevent their rotting. To help this, sand to the depth of one-half inch should be placed at the base of each

bulb when it is planted. In addition to good drainage, they require a moist, fertile soil, and should be placed far enough away from shrubs and other plants that they will not have to compete for plant food, moisture and sunlight.

All hardy bulbs like crocus, tulips and narcissus should be planted in late fall. The crocuses should be planted  $2\frac{1}{2}$  inches apart and tips 2 inches below the surface of the soil; tulips, 5 inches apart and 4 inches below the surface; narcissus, 12 inches apart and tips 4 inches from the surface.

The bulbous plants may remain in the ground several years without resetting. When necessary to reset, the bulbs should be removed from the beds after blooming and when the tops have become yellow and strong enough to be twisted without breaking, they should dry out thoroughly and then be stored for the summer in a cool, well ventilated place. If the tops have not turned yellow and the space is needed for something else, the plants may be bunched together and roots covered with soil until tops die.

A bowl of bulbs may be planted for blossoms in the house by placing pebbles in the bottom of a bowl of water to such a depth that they will allow only the base of the bulbs to rest in the water. The bulbs should not be crowded when set, after which the bowl should be placed in a cool, dark place until a good root growth is established. It should then be brought out into full sunlight. Plantings about two weeks apart will insure blossoms all winter.

### Fall Care of Plants

All shrubs and perennials should have one final cultivation, the soil being mounded up around the base. If some well-rotted manure is worked into the soil around them, the plants will make a more vigorous growth the following spring.

All dried tops should be cut off and burned before the plants are mulched for winter to get rid of any disease and to prevent harboring insects. For winter protection of the perennials one may use leaves, straw, or hay. This should be placed over the plants to a depth of from two to three inches and be left on until all danger of alternate freezing and thawing is over then raked off.

### DEMONSTRATIONS

**The Demonstration as a Method of Learning and Teaching.**—In so far as possible, all club members should be instructed in the regular club meetings by the demonstration method. A team of two of the best demonstrators should be selected from the membership of one club by

individual tryouts. All teams should have an opportunity to demonstrate before the local club group and the people of the home community, and the championship team should represent the local club at the county round-up if one is held.

### Suggested Subjects for Demonstrations

1. Making a Hardwood Cutting.
2. Flower Arrangement.
3. Starting a Bowl of Bulbs.
4. Making Softwood Cuttings.
5. Dividing Perennials.

### Suggested Outline for a Demonstration

<p>A speaks and demonstrates. Leads in giving the 4-H Club pledge; tells what club and community team represents; introduces team mate and self; gives brief history of club. States title of demonstration and tells why this subject is of value. Begins work, explaining and giving reasons. Continues to a logical break in subject matter and states that ----- will continue with demonstration.</p>	<p>B assists. Joins in giving pledge. Stands at attention while being introduced.  Assists team mate.</p>
<p>A assists.</p>	<p>B speaks and demonstrates. Continues with demonstration until conclusion or until convenient stopping place is reached. States that ----- will continue with demonstration.</p>
<p>A speaks. Summarizes demonstration. Asks for questions. Concludes demonstration.</p>	<p>B. assists. Clears demonstration table. Stands at attention for questions.</p>

### References:

- U. S. Farmers' Bulletin 1171—Growing Annual Flowering Plants.  
 U. S. Farmers' Bulletin 1370—Dahlias for the Home.  
 Missouri Extension Circular 274—The Development and Care of Lawns,  
 H. F. Major.  
 U. S. Farmers' Bulletin 1495—Common Garden Pests.  
 U. S. Farmers' Bulletin 157—The Propagation of Plants.

All of the above bulletins may be secured from your county agent or the Missouri College of Agriculture, Columbia, Missouri.