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# Planting and Pruning *Roses*



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Roses are grown in every section of Arizona, but each garden or yard planting is a "law unto itself." If you observe a few simple rules of rose culture that apply to your own local area, you should get excellent results.

*The author wishes to acknowledge the helpful suggestions and counsel received from the following persons in preparing this circular: John H. O'Dell, County Agricultural Agent, Maricopa County; Lewis Whitworth, Assistant County Agricultural Agent, Maricopa County; Steve Fazio and Joseph Folkner, Assistant Horticulturists, Department of Horticulture, University of Arizona.*

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# Planting and Pruning

## Roses

By Harvey F. Tate  
Extension Horticulturist

### Plan Before Planting

Roses grow best in full sunlight. If there is shade, it should be on the plants in the late afternoon. Do not locate the rose garden near large trees, tall hedges, or close to other plants. The roots of these plants will compete with the rose plants for food and moisture.

Do not locate the rose garden in an area where there is poor drainage or where the soil is high in alkali salts. Also, do not plant roses close to the south or west side of the house or patio wall. The reflected heat in summer will damage the rose plants.

Any bermuda, Johnson, or other perennial grasses or weeds should be completely controlled before rose bushes are set out.

### Prepare the Soil

Roses will thrive in a wide variety of soils, provided the soil

has good drainage, is free of alkali, is high in organic matter, and is in a good state of fertility. Sandy soils can be improved by adding several inches of good clay loam soil or by turning under heavy applications of rotting organic materials. Heavy, clay soils can be improved by adding several inches of sand and a good application of rotted organic material.

Where there is poor drainage, dig test holes from two to four feet deep and about six inches in diameter down through the hardpan or caliche to determine if good drainage can be established. If drainage cannot be established, choose another location for the rose bed.

In preparing the bed, trench, or hole for roses, remove the soil to a depth of 24 to 30 inches. Then thoroughly mix the best

top soil with barnyard manure or other rotted organic material at the rate of one shovel of manure to every five shovels of soil. Or, if the soil is of poor quality, replace it with good garden loam. In areas that have good, deep, loam soil, this operation is not entirely necessary.

Sprinkle superphosphate fertilizer over the soil at the rate of 2 to 4 pounds per 100 square feet and work it in as the bed is filled. In most Arizona soils it is well to add additional fertilizer that contains both nitrogen and phosphorus at the rate of from 2 to 5 pounds per 100 square feet.

Spade or thoroughly work the fertilizer into the top 6 to 12 inches of soil. Then soak the bed to a depth of from 2 to 3 feet. An inch of water soaks to a depth of 6 inches in heavy clay, 8 inches in medium textured soil, and possibly 12 inches in sand.

## Plant at Right Time

In southern Arizona the best time to plant roses is from the last half of December through February. The bushes should be planted four to five weeks before the buds start to grow. This allows the roots to become established before growth starts.

Fall plantings are not necessary in the milder sections of Arizona and very often the new bushes are not available until the first of January.

Keep the roots of new plants wrapped and moist until they are planted. Plant your roses just as soon as possible after you get them from the nursery.

## Select Good Plants

Practically all the roses planted in Arizona are bare-root stock. The many varieties are budded onto a hardy root stock which is adapted to Arizona soils. It is wise to purchase No. 1 or No. 1½ grade of field-grown plants. Never buy cheap or inferior grades.

Examine the roots to be sure they are soft and pliable and not dried out. The bark on the canes should be plump and green and not shriveled or dry.

Sometimes plants that are held in warm, dry salesrooms with very little wrapping on the roots dry out quickly and are injured. These may make very poor growth. In some cases the growth never starts.

## Allow Enough Space

In the mild climate of southern Arizona, hybrid teas and hybrid perpetuals should be planted from 3 to 5 feet apart.

The floribundas must be spaced according to their size and use. The ones growing from 18 to 24 inches in height are spaced from 18 to 24 inches apart in a hedge row. The tall varieties growing from 30 to 48 inches in height are spaced three feet apart in the row.

The small polyanthas are spaced 12 to 15 inches apart for mass effect.

The beauty of climbing roses is dependent upon the large masses of blossoms. Vigorous growing climbers need to be spaced 8 to 10 feet apart for best development.

# How to Plant Roses

## 1.



Soil in bed or hole should be prepared 6 to 8 weeks before planting. At planting time, remove the soil from a hole that is large enough to receive roots when spread in a normal position.

Form a cone of soil over which the roots will fit.



## 2.

**3.**



Keep plant roots covered and moist. Plant as soon as possible after purchasing from the nursery.

Examine roots for defects. Broken tips should be pruned off. Plants with crown gall or nematodes on the roots should be discarded.



**4.**

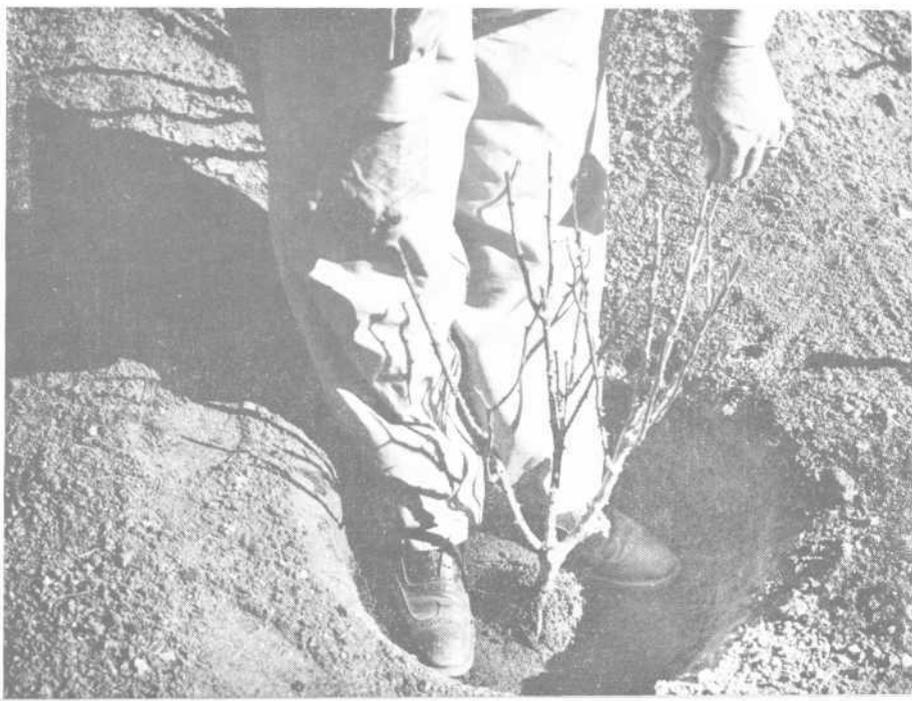


**5.**

Place roots over the cone of soil in normal position and cover by sifting moist soil in and about them.

Firm the soil around the roots to eliminate all air pockets.

**6.**



7.



Fill the hole with good top soil that has been firmed about the roots. Be sure that the bud union is about one inch above the soil level after the soil has settled.

Leave 3 or 4 canes on the new plant and cut these back from 6 to 8 inches in length.



8.

9.



Irrigate immediately and thoroughly after planting. The plant may be covered with a piece of burlap for several days to a week until the roots become established.

## Irrigating

Provision for watering must be made when the rose plant or plants are set out. Generally the rose bed, trench, or individual plant is flood irrigated in a basin. The basin or rose bed should be 3 to 4 inches below the ground or lawn surface.

At each irrigation, the water should penetrate into the soil to a depth of 2 to 3 feet. The length of time it will take depends on the type of soil. Irrigate slowly to be sure the water will soak the entire root zone.

It will be several days before the plants will need wetting

again. Water again when the leaves first show sign of slight wilting. If watered too often the leaves will turn yellow and become chlorotic.

Each gardener will have to learn how often to irrigate the plants in his garden. During the warmer days of spring, summer, and fall, loam soils will have to be irrigated once every 4 to 8 days. In the shorter days of winter once every 10 to 14 days. During hot, dry spells and windy weather, the plants will require water more often.

# Fertilizing

It is better to feed roses small amounts often, rather than to give heavy applications once a year. Roses need to be fed nitrogen and phosphorus. Most Arizona soils contain enough potash.

Established plants can be fed several times during the season with 2 ounces (2 tablespoonfuls) per plant of a mixed fertilizer such as 10-10-0, 10-20-0, or 16-20-0. The first application can be put on at pruning time, another put on when the new growth is 3 to 4 inches long, and another application in about six weeks. For fall blossoms the plants

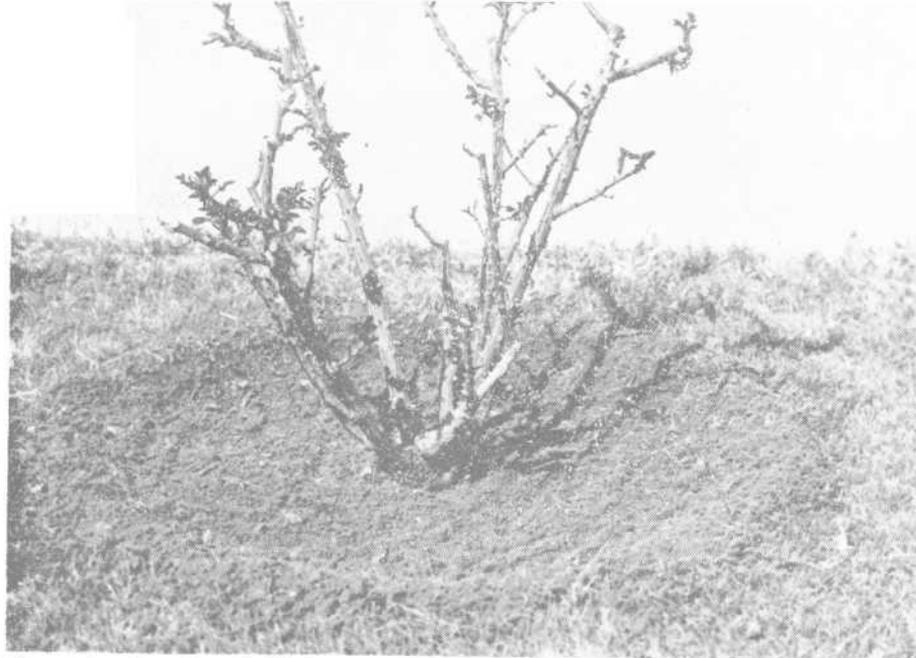
should be fed about the first of September.

Barnyard manure is an excellent fertilizing material for roses. Apply it as a mulch about two inches thick. As the mulch decomposes and thins out, more material can be added during the season.

If poultry, rabbit, or sheep manure is used, make application not over one inch in depth. The manures should not be dug into the soil when applied, but gradually worked in as the bed is weeded.

**Remove bermuda or any other grasses or weeds from around the plant. Cultivate only the top 2 to 3 inches of soil.**





Maintain a basin about 30 inches in diameter and 3 to 4 inches deep.

Apply to each plant 2 to 3 ounces of a commercial fertilizer mixture (1) after pruning, (2) after growth is a few inches long, and (3) again in the early fall. Keep a mulch of barnyard manure or other organic matter all during the season.



# Pruning

The main purpose in pruning roses is to cut out dead and diseased wood, thin out weak and crossing canes, and to head back the more vigorous canes. In the desert region and the hot interior valleys, the pruning is not as "heavy" as was recommended a few years ago. The bushes are being allowed to grow larger and give a more mass display of blossoms.

There has always been a question about how much to cut back a rose bush. All healthy, live canes will produce blossoms from 4 to 6 years or even longer. When canes fail to produce good blossoms, they should be removed by cutting back to the ground and allowing new canes to replace them. If old canes are left in the bush too long, it may be difficult to get new canes to start near the base of the bush.

Examine the plant to see if there are any live, healthy buds near the ground. If not, do not cut the cane below a good bud or lateral branch.

Never leave a stub when pruning. Make the cut within about one-fourth inch of the bud and on a slight angle. (See photo above.) A moderate amount of thinning out of old canes each year will encourage the bush to develop new canes from the base.

Most rose bushes tend to grow upright. These can be made to spread by always cutting back to outside buds or lateral branches. If the plants are too spreading, the cut should be made at the inside buds or branches that will give a more upright growth.



**Make the cut within about one-fourth inch of the bud, and on a slight angle.**

There is such a wide difference in the growth habits of different varieties of roses that it is almost impossible to set a general pattern as to the height to prune a plant or the number of canes that should be left.

The taller-growing varieties such as President Herbert Hoover, Buccaneer, and Texas Centennial produce long canes which will bear heavy crops of flowers. These and other plants of this type must be allowed to grow taller and with a wider spread than less vigorous varieties. Peace is another variety that should not be cut back too severely. Many varieties flower poorly and often the canes die back if pruned severely.

## Hybrid Teas

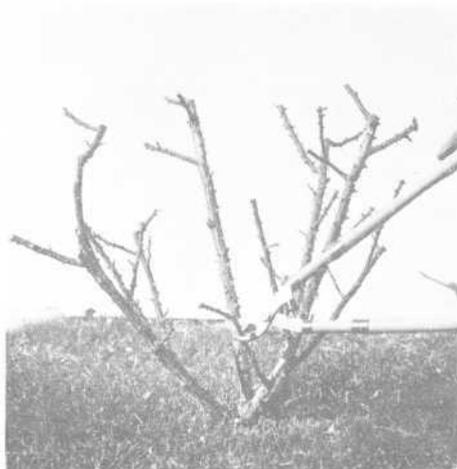
Prune hybrid teas in late winter or early spring just before growth starts. It is best to wait until the severest winter weather is over. In some areas growers do not prune until the buds have swollen or even started new growth. Pruning earlier may

start new growth which may be killed by late frosts. This is especially true in the middle and high elevations of Arizona.

To start the job of pruning, first cut out any dead wood or stubs, being certain to cut back to live wood. Next, cut out any diseased or malformed canes. Then cut out any weak or spindly branches or canes. Also, if the bush is growing too many canes in the center, thin these out.

Make all cuts clean and do not leave any stubs. Vigorous bushes should have from 7 to 10 canes left. If the bush has a good spread, even more canes can be left.

**This is a 2 year old bush before pruning. Prune during the dormant season at least 3 to 4 weeks before growth starts. On young plants or during mild winters, plant may still have some green leaves.**



**Here's the same bush after pruning.**

Next comes the job of cutting back the top. Plants one or two years old with moderate vigor can be cut back to 18 to 24 inches in height. For vigorous plants cut back to 24 to 36 inches.

As the bushes grow older, the height will vary according to the space available. As a rule the canes are cut back about one-third of the new growth. If there are any side branches, save two to three well spaced ones and cut them back to 4 to 6 inches in length.

The Talisman, Sutters' Gold, and President Herbert Hoover tend to grow very upright. These plants should be thinned out in the center and the remaining canes cut back to outside buds or laterals. It usually takes the rose gardener several years to learn how to properly handle each variety. New varieties of roses are sold each year, and it is necessary to prune carefully

until you learn the habit of growth.

As a rule when a cane forms a flowering bud, the 2 or 3 buds in the leaf axils send out lateral branches. In time these grow longer than the flower stem. At pruning time, these old flowering heads should be removed and the new laterals saved for later flowering wood. If these flowering clusters are not removed for a year or two, thinning becomes a major job.

If the top is allowed to get too thick, there will be very little, if any, growth of new canes from the base of the plant. The correct balance of pruning, whether it be severe, light, or moderate, is to keep the bush producing long, healthy canes and an abundance of flowers every year.

The new growth in a rose bush is thinned out to allow light and air to reach all parts of the plant. Keep as much flowering wood as the plant can support to produce nice flowers. More branches will mean more flowers, but smaller ones with shorter stems. In an established bush, use the strong, new canes to replace the old wood. In replacing the canes, or cutting back the top, do not destroy the general shape of the bush.

In pruning vigorous rose bushes, be careful to examine the strong sucker growth. If these suckers come from below the bud union, remove them entirely. This is a job that should be done any time during the season when such growth is noticed.

### **Floribundas**

Floribunda roses are pruned differently than hybrid teas. The plants vary in height from 12 to

15 inches to 5 or 6 feet. The bushes are more compact and are grown for the mass effect of flowers. The canes are smaller and more of them should be left on the bush.

In beds or hedges where only one variety is planted, prune the plants to a uniform size and height. Thin out the tops and cut them back just enough to encourage new wood to grow in the bush.

Floribundas produce numerous flowering heads that need to be thinned out at the end of the season. As the plants get older, some of the older canes are replaced with new ones. The floribundas can be pruned to hold them at a uniform height.

It might be necessary during the season to cut back some over-vigorous canes. If there is no need to control the height, very little pruning is necessary for these roses.

### **Climbers**

Climbing roses are pruned to make them fit the trellis, pergola, fence, or place where they are being grown. They blossom on one and two year old wood. Climbers may be pruned during the dormant season or in the late spring or summer after flowering.

Plants that have not been pruned for several years are usually thick and bushy with new and old canes. These should be pruned while dormant. When in a dormant condition, it is easier to see the canes and laterals that are to be pruned. They can be taken out without any damage to other canes and foliage. Pruning at this season will remove

some canes that would flower in the spring, but plenty of flowering canes will be left.

Plants that are not too brushy should be pruned after blooming. Remove the older grey-colored canes and save the healthy green ones. Laterals can be cut back to 8 or 10 buds. The long canes should be trained by arching or tying them in a horizontal position. This makes every bud send up a flowering branch.

Some of the very vigorous varieties such as Belle of Portugal, Mermaid, Banksia, and Cecile Brunner should be trained over a fence, pergola, porch, or garage roof where they have plenty of room to spread. Remove the dead and old canes after flowering. These varieties are best in mass effect.

The hybrid perpetuals such as Paul's Scarlet, Blaze, Silver Moon, American Beauty, and American Pillar should be pruned after blooming, thus leaving as much flowering wood as possible in the plant.

Large bush roses such as Harrison's Yellow, the rugosas, Austrian Copper, and other species grown for large bushes need little or no pruning. Remove any dead wood, and if the plants become too large, cut out the excess growth to reduce the plant in size. If the canes are branched, they may be cut back to laterals. Never cut off all the tips of the canes.

## Seal Cut Ends

When the pruning job is completed, all cut ends of the canes larger than a pencil should be covered with a sealing compound. A sealing compound with an asphalt base is best. This keeps cane borers from getting in the end of the cane.

## Don't Over-Prune

In caring for your rose plants, prune moderately and try to reason out what you are doing. **In case of doubt do not prune!**

# What Type of Rose?

There are several different **types** of roses. Select the type, or types, best adapted to your area. Then choose varieties of this type that are hardy and easy to grow.

## Hybrid Teas

The most popular roses grown in Arizona are the hybrid teas. They provide excellent cut flow-

ers, and they bloom almost every month of the year in the warmer sections of the state.

## Floribundas and Polyanthas

The floribundas and polyanthas produce flowers in clusters. The floribundas are known for their vigorous growth and large

flower clusters. Plants are very hardy.

The polyantha roses are small growing bushes with clusters of small flowers. The plants generally are not as hardy as the floribundas.

## Grandiflora

Grandiflora is a new class of rose. The plants are vigorous and tall growing. The flowers are similar in form to the hybrid teas, but are borne in clusters on stems long enough for cutting and arranging.

## Hybrid Perpetuals

Hybrid perpetuals are vigorous roses that are cold hardy. The main period of bloom is a few

weeks in the spring, but some varieties will have a few flowers again in the fall.

## Shrub Roses

The shrub roses include the rugosa, the species roses, and other old-fashioned favorites such as the moss, damask, cabbage, and others.

## Climbers

Climbing roses may be hybrid teas, hybrid perpetuals, floribundas, or rambles. These all have long canes and need special handling. The flowers may be borne in clusters or on single stems, depending on the variety and method of training.

# Rose Varieties for Arizona

## HYBRID TEAS

### Red

#### Bush:

Crimson Glory  
Etoile de Hollande  
Chrysler Imperial  
Christopher Stone  
Hadley  
San Fernando  
Mirandy  
Heart's Desire  
New Yorker  
Nocturne  
Red Radiance

#### Climbers:

Blaze  
cl. Christopher Stone  
cl. Crimson Glory

cl. Etoile de Hollande  
cl. Hadley  
cl. Heart's Desire  
cl. Nocture  
cl. San Fernando

### Shades of Red

#### Bush:

Applause  
Charlotte Armstrong  
Mme. Henri Guillot  
Tallyho  
Texas Centennial

#### Climbers:

cl. Texas Centennial  
cl. Charlotte Armstrong

# HYBRID TEAS (cont'd)

## Yellow

### Bush:

Buccaneer  
Eclipse  
Fred Howard  
Golden Rapture  
Mme. Chiang Kai-shek  
Mrs. E. P. Thom  
Mrs. P. S. DuPont  
Soeur Therese  
Sutters' Gold  
Tawny Gold  
Lowell Thomas  
Golden Masterpiece

### Climbers:

cl. Golden Rapture  
High Noon  
Mermaid  
cl. Mrs. E. P. Thom  
cl. Mrs. P. S. DuPont  
Yellow Banksia

## Pink

### Bush:

Capistrano  
Dainty Bess  
First Love  
J. Otto Thilow  
Katherine T. Marshall  
Picture  
Pink Radiance  
Santa Anita  
Show Girl  
The Doctor

### Climbers:

Belle of Portugal  
cl. Cecile Brunner  
cl. Dainty Bess  
cl. Picture  
cl. Santa Anita  
cl. Show Girl

## Shades of Pink

### Bush:

Countess Vandal  
Helen Traubel  
Mission Bells

### Climbers:

cl. Countess Vandal

## White

### Bush:

Caladonia  
Frau Karl Druski  
K. A. Victoria  
McGredy's Ivory  
Sleigh Bells  
Snowbird  
White Swan

### Climbers:

cl. K. A. Victoria  
cl. McGredy's Ivory  
Silver Moon  
cl. Snowbird  
White Cherokee

## Multicolor

### Bush:

Girona  
Mojave  
Mrs. Sam McGredy  
Peace  
Panaranda  
President Herbert Hoover  
Taffeta  
Talisman

### Climbers:

cl. Hinrich Gaede  
cl. Mrs. Sam McGredy  
cl. Peace  
cl. Pres. Herbert Hoover  
cl. Talisman

# FLORIBUNDAS

## Red and Shades of Red

### Bush:

Carousel  
Chatter  
Donald Prior  
Eutin  
Floradora  
Folkstone  
Garnette  
Imp. Lafayette  
Jiminy Cricket  
Red Pinocchio  
Red Ripples  
Valentine  
Vogue  
World's Fair  
Siren Spartan

### Climbers:

cl. Floradora

## White

### Bush:

Dagmar Spath  
Gruss an Achen  
Summer Snow

### Climbers:

cl. Summer Snow

## Pink and Shades of Pink

### Bush:

Betty Prior  
China Doll  
Cecile Brunner  
Crown of Jewels  
Else Poulsen  
Lilibet  
Pink Bountiful

### Climbers:

cl. Pinkie

## Yellow and Orange Shades

### Bush:

Goldilocks  
Golden Salmon  
Margo Koster  
Orange Triumph  
Yellow Pinocchio

### Climbers:

cl. Goldilocks

## Multicolor

Fashion  
Ma Perkins  
Pinocchio  
Circus

# Rose Varieties for Elevations Above 6,000 Feet

## Bush:

American Beauty — Red  
Austrian Copper — Coppery  
red  
Betty Prior — Pink  
Else Poulsen — Pink  
F. J. Groatendorst — Red  
Frau Karl Druski — White  
Goldilocks — Yellow  
Gruss an Teplitz — Red  
Harison's Yellow — Yellow  
Magna Charta — Red  
Paul Negrón — Pink  
R. Hugonis — Yellow  
Summer Snow — White

## Climbers:

cl. American Beauty — Red  
American Pillar — Pink  
Chevy Chase — Crimson  
Crimson Rambler — Crimson  
Dorothy Perkins — Pink  
Dr. Huey — Red  
Dr. W. Van Fleet — Pink  
Excelsa — Red  
Hiawatha — Red,  
White Center  
New Dawn — Pink  
Paul's Scarlet or Blaze — Red  
Silver Moon — White  
cl. Summer Snow — White

There are many other varieties of the Hybrid Teas, Floribundas and Hybrid Perpetuals that can be grown if given protection during the winter months. Check with your County Agricultural Agent.

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County Agricultural Agent or  
Home Demonstration Agent  
for other farm and  
home information.

Here are other Extension Service Circulars you may need. Get a copy from your County Agricultural Agent or Home Demonstration Agent.

Arizona Home Gardening (vegetables)—Cir. 130

Lawns for Arizona—Cir. 135

Control of Garden Insects—Cir. 122

Control Insects of Flowers, Shrubs, and Shade Trees—Cir. 199

Diseases of Garden Crops (vegetables)—Cir. 227