

General Considerations

Roses, like many other plants, perform best when fed well. The inside page of this brochure lists several examples of good fertilizer programs designed to suit various user preferences.

Roses like a balanced meal of the Primary major nutrients Nitrogen (N), Phosphorus (P, but sold as Phosphate (P₂O₅)) and Potassium (K, but sold as Potash (K₂O)); the Secondary major nutrients Calcium (Ca), Magnesium (Mg) and Sulfur (S); and the Micronutrients Iron (Fe), Manganese (Mn), Zinc (Zn), Boron (B), Copper (Cu), Molybdenum (Mo) and Chlorine (Cl).

In the Mid-Atlantic Region most soils with normal soil management practices (e.g., lime to correct pH and occasional micronutrient applications) provide all of these in adequate amounts, except N, P₂O₅, K₂O, S and Fe. These must be provided by your fertilizer program. Look for these specifically on the labels of fertilizer.

Mostly any fertilizer containing these essential nutrients is good, although organic fertilizers (those with plant and/or animal ingredients) are better for the soil and will yield better results with less fertilizer over the long term than chemical (manufactured or mined) fertilizers. Espoma Plant-tone is an example of an organic and Osmocote of a chemical fertilizer.

Roses are heavy feeders and tend to respond well to annual N applications ranging from 16 lbs N/1000 sq ft to 48 lbs N/1000 sq ft. However soil acts as an amazing buffer for some nutrients, supplying them when applications are insufficient and storing them (except N & S) when applications are excessive. This allows roses to grow for long periods without fertilization, albeit at reduced performance levels.

As a general rule, the first feeding for roses in the Capital Region should occur immediately after spring pruning (late March/early April), a second about mid-June and the last about mid-August. Fertilizer applied much later in the year will encourage new growth and delay the plant's entry into dormancy. The shorter duration solubles can be made as late as Sept 30. Roses will continue to bloom well into November, without additional fertilizer. Some extended duration fertilizers like Osmocote (9 month duration) require only one application in the spring, immediately after pruning.

Most fertilizers tend to acidify the soil (lower the pH), requiring an application of from ¾ to 1½ cup of lime in the fall to maintain pH in the ideal 6.25 to 6.75 range.

CONSULTING ROSARIANS

of the

Arlington Rose Foundation

Consulting Rosarians (CRs) are certified by **THE AMERICAN ROSE SOCIETY** after successfully demonstrating expert knowledge on rose culture. A select few rosarians who have been CRs for at least 10 years and provided outstanding service to others, have been elevated to the status of Master Consulting Rosarian (M). All are available free of charge to assist and advise on rose culture and problems, help anyone start new rose gardens and in every way share their knowledge with others. You may feel free to call upon them with questions or for assistance.

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FERTILIZING

ROSES

(BASIC)

Arlington Rose Foundation



Affiliated with the
American Rose Society

Published by
Arlington Rose Foundation
www.arlingtonrose.org

Some Examples of Fertilizer Programs

All of the following programs will provide good results. Choose one that works for you. The first group of programs uses products readily available locally, while the second group uses products more difficult to find, but which are available with membership in the **Arlington Rose Foundation**. The second group is illustrative of programs that may provide marginally better performance. However most will be very pleased with one from the first group, especially those with high organic content.

The amounts shown are for average size roses (e.g. hybrid teas spaced 30 inches). Apply twice the amount to large bushes & climbers, one-half to small bushes and one-quarter to potted plants (about 15 inch diameter).

❖ **Organic:** N = 27.1 lbs/1000 sq ft (option N = 39.6)

- Apr 15 2 cup Espoma Plant-tone 5-3-3
- Apr 15 1/2 cup Milorganite (for Fe)
- Jun 15 2 cup Espoma Plant-tone
- Aug 15 2 cup Espoma Plant-tone

If Espoma Rose-tone 4-3-2 is substituted for Plant-tone the Rose-tone must be increased to 2½ cups and 1 tbsp of muriate of potash must be added in Apr to achieve the same results. *Increasing the Plant-tone to 3 cups will increase the N to 39.6 and probably yield marginally better results.*

❖ **Extended duration:** N = 34.8 lbs/1000 sq ft

- Apr 1 1 cup Osmocote Plus 15-9-12
- Jul 1 1 cup Osmocote Plus 15-9-12

Osmocote Plus is formulated to last half the season and provides all the necessary nutrients.

❖ **Organic + extended duration:** N=29.9 lbs/1000 sq ft

- Apr 1 1/2 cup Osmocote Plus 15-9-12
- Apr 15 1 cup Espoma Plant-tone 5-3-3
- Jul 1 1/2 cup Osmocote Plus 15-9-12
- Jun 15 1 cup Espoma Plant-tone 5-3-3
- Aug 15 1 cup Espoma Plant-tone 5-3-3

This combines the advantages of Osmocote to provide a steady base of N throughout the season and of Plant-tone to provide organics that improve the soil.

❖ **Liquid:** N = 34.7 lbs/1000 sq ft

- Apr 1 1 gal LF (w/2 tbsp/gal Jack's 20-20-20)
- Apr 15 1/2 cup Milorganite (for iron)

Apr 15 thru Sep 15 Repeat LF every 2 wks. Liquid fertilizer programs are especially recommended for potted roses. Remember to reduce the amounts in accordance with pot size, e.g. with 15 inch pots reduce amounts to 1/4 gallon per bush. Water well before and after applying.

❖ **Granular:** N = 38.1 lbs/1000 sq ft

- Apr 15 1/2 cup granular 20-20-20
- Apr 15 1/2 cup Milorganite (for Fe)
- Apr 15 1/4 cup gypsum (for S)
- Jun 15 1/2 cup granular 20-20-20
- Aug 15 1/2 cup granular 20-20-20
- Aug 15 1/4 cup gypsum (for S)

If using 10-10-10 granular, double the amount.

❖ **Organic + liquid:** N = 35.2 lbs/1000 sq ft

- Apr 1 1 gal LF (w/Jack's Blossom Boost 10-30-20)
- Apr 15 2 cup Espoma Plant-tone 5-3-3
- Apr 15 1/2 cup Milorganite (for Fe)
- May 1 1 gal LF (w/ Jack's Classic 20-20-20)
- Jun 1 1 gal LF (w/ Jack's Classic 20-20-20)
- Jun 15 2 cup Espoma Plant-tone
- Jul 1 1 gal LF (w/ Jack's Classic 20-20-20)
- Aug 1 1 gal LF (w/ Jack's Classic 20-20-20)
- Aug 15 2 cup Espoma Plant-tone
- Sep 1 1 gal LF (w/ Jack's Classic 20-20-20)

Following programs use products available to members of the Arlington Rose Foundation

❖ **Organic:** N = 29.1 lbs/1000 sq ft

- Apr 15 2 cup Mills Magic Mix 6-5-1
- Apr 15 2 tbsp Sulfate of Potash (for S & K)
- Apr 15 1/2 cup Milorganite (for Fe)
- Jun 15 2 cup Mills Magic Mix
- Aug 15 2 cup Mills Magic Mix
- Aug 15 2 tbsp Sulfate of Potash

❖ **Extended duration:** N = 31.3 lbs/1000 sq ft

- Apr 1 1.5 cup Osmocote 18-5-12 (9 month)

This program is similar to previous Osmocote Plus except Osmocote 18-5-12 is formulated to last all season. It also provides all the necessary nutrients.

❖ **Organic + extended duration:** N=23.9 lbs/1000 sq ft

- Apr 1 1/2 cup Osmocote 18-5-12 (9 month)
- Apr 15 1 cup Mills Magic Mix 6-5-1
- Apr 15 3 tbsp Sulfate of Potash (for S & K)
- Jun 15 1 cup Mills Magic Mix
- Aug 15 1 cup Mills Magic Mix

❖ **Liquid:** N = 36.2 lbs/1000 sq ft

Apr 1 thru Sep 15 (every 2 weeks) - 1 gal LF (w/2 tbsp/gal Peters Prof 20-20-20, Sequestrene 330 FE on Apr 15 & Jul 15, and no humic acid). Remember to reduce amounts for potted plants.

❖ **Organic + liquid:** N = 36.5 lbs/1000 sq ft

- Apr 1 1 gal LF (w/Peters Professional 20-20-20)*
- Apr 15 2 cup Mills Magic Mix 6-5-1
- Apr 15 1/4 cup muriate of potash (for K₂O)
- May 1 1 gal LF (w/Peters Professional 20-20-20)

- Jun 1 1 gal LF (w/Peters Professional 20-20-20)
- Jun 15 2 cup Mills Magic Mix
- Jul 1 1 gal LF (w/Peters Professional 20-20-20)
- Aug 1 1 gal LF (w/Peters Professional 20-20-20)*
- Aug 15 2 cup Mills Magic Mix
- Sep 1 1 gal LF (w/Peters Professional f 20-20-20)

* include Sequestrene 330 FE

❖ **Organic + extended duration + liquid:** N = 31.8

- Apr 1 1/2 cup Osmocote 18-5-12 (9 month)
- Apr 15 1 cup Mills Magic Mix 6-5-1
- May 1 1 gal LF (w/Peters Professional 20-20-20)
- Jun 1 1 gal LF (w/Peters Professional 20-20-20)
- Jun 15 1 cup Mills Magic Mix
- Jul 1 1 gal LF (w/Peters Professional 20-20-20)
- Aug 1 1 gal LF (w/Peters Professional 20-20-20)*
- Aug 15 1 cup Mills Magic Mix
- Sep 1 1 gal LF (w/Peters Professional 20-20-20)

* include Sequestrene 330 FE

❖ **Organic plus liquid fertilizer program:** N = 36.2

- Apr 1 1 gal LF (w/Jack's Bloss Boost 10-30-20) * †
- Apr 15 2 tbsp Muriate of Potash
- Apr 15 1 cup Mills Magic Mix 6-5-1
- Apr 15 1 cup kelp meal 1-0.15-2
- Apr 15 1 cup alfalfa meal 3-0.5-2
- Apr 15 1 cup fish meal 9-3-1
- May 1 1 gal LF (w/Jack's Bloss Boost 10-30-20) ** †
- May 15 1/2 cup blood meal 12-0-0
- Jun 1 1 gal LF (w/Jack's Bloss Boost 10-30-20) †
- Jun 15 1 cup alfalfa meal 3-0.5-2
- Jun 15 1/2 cup blood meal 12-0-0
- Jul 1 1 gal LF (w/Jack's Bloss Boost 10-30-20) †
- Jul 15 1/2 cup blood meal 12-0-0
- Aug 1 1 gal LF (w/Jack's Bloss Boost 10-30-20)** †
- Aug 15 1 cup alfalfa meal 3-0.5-2
- Aug 15 1/2 cup blood meal
- Sep 1 1 gal LF (w/Jack's Bloss Boost 10-30-20) ** †

* incl Sequestrene 330 FE ** incl SUPERthrive

† 2 tbsp/gal Epsom salts

Liquid Formula (LF) - mix following in water:

- 1 tbsp/gal soluble fertilizer as specified
- 1 tbsp/gal fish emulsion (loved by roses)
- 1 tbsp/gal Epsom salts (for S)
- 1 tbsp/gal humic acid (incl only in 2nd group of programs)
- 1 tsp/gal Sequestrene 330 FE chelated iron †
- 0.375 tsp SUPERthrive (contains triacontanol) †
- † optional - not used except as called for

Remember: water-water-water-water

before and after fertilizing.