Fertilizers are the nutrients that roses need to grow strong healthy canes and big beautiful blooms.

There are three main (Macro) nutrients for fertilizers:
- **Nitrogen** - Stimulates growth, strong canes, good blooms and rich dark foliage.
- **Phosphorus** - Stimulates root growth and big blooms.
- **Potassium** – Promotes root growth, vigor and bloom color.

These are combined with the following trace elements that help with early root growth, stem and bud formation and chlorophyll formation:
- **Sulphur** - Supplies material for amino acids and proteins needed for plant health. Also lowers pH.
- **Calcium** - Promotes stability, early growth and bloom color.
- **Magnesium** - Promotes chlorophyll formation to produce greener foliage and disease resistant plants.
- **Zinc** - Stimulates stem growth and bud formation.
- **Iron** - Aides in chlorophyll formation.
- **Manganese** - Aids chlorophyll formation and helps in photosynthesis.
- **Copper** - Stimulates stem development.
- **Boron** – Stimulates flower formation and pollination.
- **Molybdenum** - Stimulates plant growth and vigor.
- **Carbon, Hydrogen, and Oxygen** - Necessary for all plant life. These are obtained from the air.

Organic fertilizers are made up of formerly living plants or animal materials. Among these are bone meal, alfalfa meal, fish meal, cottonseed meal, blood meal and manures (chicken, horse and steer). They take longer (30 - 90 days) to break down in the soil. Some of the best organic fertilizers are Organo, Hickman’s, Berridge Rose Food, Mills Magic Mix, Milorganite and Osmocote.

In-organic (chemical) fertilizers are manmade. They provide an immediate food source for the plants. Some of the most popular inorganic fertilizers are Bandini and Fertilome.

Do not fertilize new bushes until they have bloomed.

In February after all pruning is done, apply a good fertilizer like Hickman's, Organo, Mills Magic Mix, Milorganite, Berridge's or any other good slow release fertilizer. Also, use one cup of Alfalfa Meal at this time. Apply one cup to standard size bushes, one-half cup to miniatures and one-fourth cup to plants in pots.

Be sure to water before and after fertilizing.

In late February apply one-half cup of epsom salts to standard bushes, one-fourth cup to miniatures and one-eighth cup to roses in pots.

First week in March, start a routine for rose shows. Use fish emulsion and Magnum Grow at the rate of 1 Tablespoon per gallon of water. Alternate these two fertilizers weekly. For hybrid teas and grandifloras use one and one-half gallon per bush. For floribundas and shrubs use...
one gallon, and for miniatures use one-half gallon per bush. For those roses in pots use one-fourth gallon.

For April and May use the same schedule as March.

In June use a slow release fertilizer just like February.

In July and August use Magnum Grow at one-third the strength (1 teaspoon per gallon of water) every two weeks.

In early September apply a chelated iron to all the rose bushes. Use three-fourths cup per gallon of water for large bushes, one-half cup for miniatures in the ground, and one-fourth cup per gallon for roses in pots. Also, use a slow release fertilizer again. In the last week in September, apply epsom salts again.

In October and November use the same alternate week schedule as March – Magnum Grow and fish emulsion.

If you are not showing roses, you can use the same formula for February, June, and September, and in the other months use Miracle Grow every two weeks. In July and August use 1/2 the amount.

In December, spend time looking at all the new roses and decide where you can find space to put them.

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