

## ROSE FRAGRANCE FACTORS

Like many other plant processes the fragrance of a rose is a mysterious and magical biochemical process that happens at the cellular level of a rose flower. It is the oil produced, in the petals, at the base of each flower that is responsible for the fragrance of any particular rose. When we smell a rose, our olfactory picks up the minute amounts of these oils evaporating from the flower petals. This is exactly what pollinators are also attracted to as well. There are many different and distinct scents that have been identified in roses, like; rose, of course, but also nasturtium, violet, apple, lemon or citrus, clover, hyacinth, orange, anise, wine, orris, marigold, geranium and raspberry, to name a few.

Generally, the most highly scented roses are darker in color, have a high petal count and have thick or velvety petals. Red and pink roses are most likely to have a scent of a "rose". White and yellow blooms commonly have scents of orris, nasturtium, violet, verbena or lemon. Orange to peach colored roses tend to favor fruit scents and nasturtium, violet, orris or clover scents. If you are particularly attracted to or have a good sensory smell for some of these individual aromas, then you might lean toward choosing a particular color of rose.

Along with their color, petal texture and count, several other factors will affect and alter the degree of fragrance of a rose. As already mentioned, evaporating oils are responsible for the level of fragrance and there are many environmental factors that affect rose fragrance:

- Rose fragrance will be strongest on warm, sunny days when the soil is adequately moist
- Moist soil around plants enhances fragrance; hence, mulched plants produce more scent
- Bloom fragrance is most intense during early morning hours
- First blooms of the season are more fragrant than later season flowers
- Half-opened blooms are most fragrant when blooms are most attractive to pollinators
- Fully opened blooms at the end of the day will be least fragrant
- Heat and humidity affect fragrance positively or negatively
- Drought conditions reduces bloom fragrance
- Cutting blooms often intensifies fragrance, even if briefly
- Mildew and presence of other fungal diseases reduces fragrance