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ProGibb®

Some commonly asked questions on the use of ProGibb on table grapes:

1. What's the ingredient in ProGibb?

The ingredient in ProGibb is gibberellic acid, a naturally occurring plant growth regulator found in most plant species. Gibberellic acid is produced by the process of fermentation, where a pure strain of the fungus *Gibberella fujikorai* is grown in an aseptic medium. The unsurpassed quality of ProGibb stems from the highly sophisticated process and unique quality control procedures that VBC uses to make gibberellic acid.

2. How does ProGibb work in seedless table grapes?

The active ingredient in ProGibb is gibberellic acid, a natural plant growth regulator found in most plants. Gibberellic acid regulates several different processes in plants. Perhaps the most well-known effect of gibberellic acid is to promote the growth and development of plant organs, flowers, fruits, leaves and stems. Seedless table grapes are deficient in gibberellic acid, as the main source of it are the seeds.

In seedless grapes, ProGibb is applied before bloom to “stretch” the cluster. This elongation provides more room for the berries to grow larger and makes for a looser cluster. A looser cluster allows for better air circulation, which in turn reduces disease incidence and improves berry growth and maturation. A second set of ProGibb applications is done at bloom time. This reduces the number of berries by causing some of the flowers to abscise or drop. With less competition, the remaining berries will grow larger. Finally, several “berry sizing” sprays are made in the 10-15 days following berry set to promote berry growth and development. The end result of the gibberellic acid regimen is a large, loose cluster, with large and uniformly sized berries that mature evenly. All seedless grapes grown for fresh market are grown with gibberellic acid applications. Currently, many varieties of seeded table grapes are also treated with gibberellic acid as berry size is also improved in these varieties.

3. What are the ideal conditions to apply ProGibb to grapes?

- a) Temperature: For ProGibb to be absorbed and work in the tissue, the plant metabolism must be active. Thus, very low and very high temperatures must be avoided. Best results are obtained at temperatures between above 60°F and below 90°F. In dry hot regions, ProGibb is usually applied at night.
- b) Slow drying of the spray material allows for higher penetration of ProGibb into the plant tissue. Avoid low relative humidity (less than 40%) and windy conditions. Early mornings and late evenings are usually desirable spraying times, as long as the temperature is adequate.



4. How does ProGibb affect the quality of table grapes?

ProGibb improves the quality of table grapes by producing a large, loose cluster of well-developed berries. Flavor and aroma develop normally in ProGibb-treated grapes, providing that adequate cultural practices in the vineyard are followed. It is also important to harvest the grapes at the optimum maturity to attain maximum eating quality by the time the fruit reaches the market. Because a looser cluster is less prone to be attacked by fungal diseases, ProGibb-treated grapes may in some cases require less fungicide sprays.

5. Does ProGibb affect the following year's crop or cause alternate bearing?

When ProGibb is applied according to the label directions it has no detrimental effects on the following year's crop. A sound ProGibb program may in fact help maintain a stable, uniform cropping pattern from year to year. Excessive ProGibb rates under some growing conditions (regions with hot summers and warm winters) may reduce the number of clusters formed the following year. This is usually not a problem since the number of clusters is usually higher than the vines can carry, and it is common practice to thin cluster down to an adequate number.

6. Does ProGibb use in grapes fit IPM and IFP practices? Does ProGibb qualify for organic farming?

The active ingredient in ProGibb (gibberellic acid) is labeled as naturally occurring by the regulatory agencies, and is exempt from tolerance establishments for all crops. Based on the inert ingredients, some of the ProGibb formulations qualify for IPM, IFP and organic farming practices.

7. What kind of application equipment is necessary for ProGibb? What's the best droplet size?

ProGibb applications are most commonly done with high volume, high pressure sprayers. Thorough coverage of the fruit is essential, and the fruit is typically covered by the vine canopy in most training systems. Water volumes are generally in the 200-400 gallons per acre (2,000-4,000 liters per hectare), with 250 gallons per acre (2,500 liters per hectare) being quite common. Water volume also depends on wind, temperature and relative humidity.

8. Do adjuvants enhance ProGibb efficacy?

ProGibb is formulated to be used without the use of any additives. In many years of research we have found that adjuvants (spreader-stickers, surfactants, etc.) only help in some specific situations. When spraying conditions are ideal, and with good quality water, it is hard to notice the effect of adjuvants. In adverse spraying conditions (windy, dry, high temperatures) it is possible that a non-ionic surfactant may help improve coverage and increase absorption. Also, a pH corrector is only necessary if the pH of the water is 8.5 or higher. Caution should be exercised since some surfactants and other additives may cause russet or phytotoxic reactions.