



THE CHERRY ENCYCLOPEDIA

VOLUME THREE

THE USE OF GIBBERELIC ACID (G.A.) (“GIBB”) ON CHERRIES

Gibberellic acid is a natural occurring plant hormone that is used as a plant growth regulator in many commodities, including sweet cherries. In the United States of America, gibberellic acid may also be used for certified organic cherries as well.

“Gibb” is used in many crops to improve crop quality and value. For instance in table grapes, gibb enlarges the clusters of grapes and produces a larger berry size. In citrus, gibb improves the rind quality, extends harvest periods, and results in a firmer piece of fruit.

There are over one hundred isomers of gibberellic acid naturally present in fruits. GA₃ is the isomer of gibberellic acid used commercially on cherries. The use of gibb on fresh cherries influences the ripening enzymes and functions and delays maturity. Some of the effects one could see from the use of gibb might include:

- Three to five day delay in harvest
- Measurably firmer fruit
- Increase in soluble solids
- Improved post-harvest shelf life
- Larger size fruit and larger crop depending on weather conditions
- Increase in internal maturity and notably darker internal color in many varieties
- Greener stems
- Diminishment of the effects of high temperatures at harvest time on firmness

Some of these effects can be risky to the grower as well. With the delay in harvest, there could be a change in market prices. A harvest delay might subject cherries to an adverse weather event that otherwise they might not have experienced. Firmer fruit can be more susceptible to rain cracking. In 2011, many growers in the Stockton area noted they lost much more of their Bing crop to rain when it was treated with gibb than the softer more pliable cherries that were not treated with gibb. There is a tendency in many varieties to have a higher incidence of stem detachment when the fruit is treated with gibb.

Gibberellic acid is a valuable tool for the cherry grower, but the decision to treat with gibberellic acid must be made with consideration to all of the effects, both positive and negative.

