

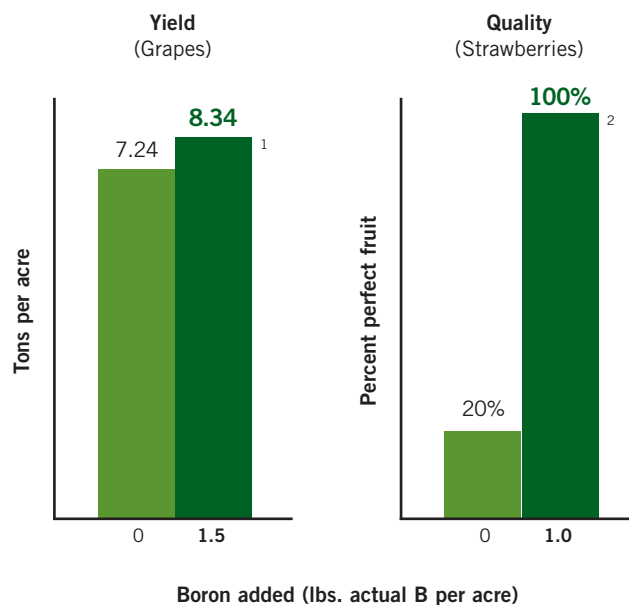
B in small fruit



Boron is an essential element for increasing yield and quality of small fruits. Where boron is lacking, nutritional disorders appear. Boron is the key element in nutritional balance affecting normal fruit formation. University data has related boron fertilization to yield and quality of small fruits.

Boron is essential for all plant growth. A balance of boron with other elements is essential for high-yielding, top-quality fruit crops, especially during flowering and fruit formation. Making sure that the crop has adequate boron will:

- Increase flower retention, pollination and fruit set
- Lower the number of malformed fruit and increase the amount of marketable fruit
- Help movement of sugars and nutrients from the leaves to fruiting points
- Ensure optimum fruit fill and reduce premature fruit drop



1. Ahmedullah, M. 1988. Boron for better grape production. Unpublished data. Washington State University, Department of Horticulture and Landscape Architecture.
2. Willis, L.G. 1945. Defective Strawberry Fruit Corrected by Borax. Better Crops with Plant Food. February 1945. p. 22.

Boron fertilization of small fruit crops

Fruit crop	Typical range of boron fertilization by method		Normal range of leaf boron (Parts per million)
	Broadcast on soil	Foliar	
	(Pounds of boron per acre)		
Blackberries	0.5-2	0.1-0.2	20-35
Blueberries	0.5-1	0.1-0.2	12-35
Bunch Grapes	1-3	0.3-0.5	25-50
Currants	0.5-2	0.1-0.2	20-35
Dewberries	0.5-2	0.1-0.2	20-35
Muscadine Grapes	0.5	0.1-0.2	15-25
Raspberries	1-3	0.3-0.5	20-35
Strawberries	0.5-1	0.1-0.2	20-50

*Soil application results are not as effective as foliar application. The most effective application rate is 5 lbs. Solubor in 100 gallons of water, applied late dormant to early bud.

How much boron is enough?

- The amount of boron fertilizer needed for a particular fruit crop depends on the type and variety, the soil and climate in which it is grown, the seasonal growing conditions encountered that year, and the timing and method of boron application.
- Recent research on several fruit crops has shown that the amount of boron needed in the plant for optimum fruit set and quality is higher than previously thought.
- Rates of boron fertilization should be based on soil tests and/or plant analyses, previous experience, yield and quality goals, timing and application methods. Standard ranges of boron fertilization are normally suggested to meet specific fruit crop needs under average local conditions.

Your boron fertilizer options

- *Granubor*® 2 is an ideal material for dry blends broadcast applied to the soil.
- *Fertibor*® works best in fertilizer suspensions for all soil broadcast applications.
- *Solubor*® allows you the best flexibility for applying boron. It can be dissolved alone in water or in liquid fertilizers, and/or along with pesticides and then applied to the soil or directly onto the crop. *Solubor*® is ideal for use in fertigation.*

*Foliar sprays should not exceed 0.5 lbs./acre boron per application.

*Fertigation allows timely split applications of boron when it is needed by the crop and minimizes leaching. Drip-trickle fertigation allows incremental applications of 0.1 to 0.25 lbs./acre boron through the drip system.

*The total amount of boron added in foliar sprays or split applications should not exceed the total broadcast recommendations.

For more information

- Call US Borax at 1 (800) 699 9005
- Visit our website at www.borax.com/agriculture

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