



STOLLER ENTERPRISES, INC.

...World leader in crop nutrition...

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CONTROL VIGOROUS VINE GROWTH

Foliar apply 1 quart per acre NBX (2.4 liters per hectare) when vigorous vine growth begins. Continue this application every 14 days until vigor is at a desirable rate.

If growth is still too vigorous, increase rates 50%.

If growth slows down, skip one or two applications until vigor returns. Application may then be continued.

Vigorous vine growth is the biggest problem in vine production. It is responsible for lower yields, poorer quality, and less disease resistance. The above treatment will also reduce the amount of summer pruning.

Vigorous vine growth will "pull" photosynthates away from fruit and roots and cause them to move to the shoots.

SIZING OF GRAPES

Foliar apply 1 quart per acre (3 liters per hectare) of Calcium 5X when fruit is about 2-4 mm in size. This application will increase cell division.

Fruit size is determined by two factors ... cell division and cell sizing. Calcium 5X will increase cell division.

Gibberellic acid increases cell sizing. Calcium 5X will help increase the number of cells to size.

BUNCH SIZE AND LEAF SIZE TO COVER THE BUNCHES

Foliar apply 1 pint per acre (1 liter per hectare) of Bio-Forge. Make application between the second and third GIB application.

Bunch size, leaf size, and root size can be rapidly increased for a 12 day period by application of Bio-Forge. This is becoming a standard practice in some countries.

INCREASE IN BRUX, SIZE, AND SHELF LIFE

Foliar apply 1 – 1½ pints per acre of COMO at the early color stage.

This application will delay ripening for 7 to 14 days. Grapes will have more time to fill. Size will increase. BRUX will increase. Less dehydration in storage and transportation.

EARLINESS

Foliar spray 6 oz. per acre of Calcium 5S at bud swell.

Early flowering with more vigorous flower growth will result. More bunches will develop close to the wood.



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REDUCE ALTERNATE YEAR BEARING

This is done by decreasing shoot growth (see above).

EARLY SEASON VIGOR

Apply 1 gallon of LOAD (NBX) about 45 days before pruning. For best results, include 7 lbs./ac of Harvest More 5-5-45.

Next year's early growth will depend on the amount of carbohydrates that are stored in the wood ... before pruning. The above treatment will LOAD more food into the wood from the growing vines.

When we prune and remove vines, we take carbohydrates off of the vineyard. It is important for next seasons early growth to put these sugars back into the wood before pruning.

ROOTS ... ROOTS ... ROOTS

Apply Nitro Plus 9 with 0.1% B at 10 gallons per acre (through irrigation or inject into the soil in a band) immediately after harvest.

+

Apply Nitro Plus 9 with 0.1% B at the beginning of flower cluster.

+

Apply Nitro Plus 9 with 0.1% B at the beginning of fruit set.

Each application contains 10 lbs. of nitrogen (1 lb. N/gal) and 7 lbs. of calcium. Reduce regular nitrogen by the same amount.

The growth of the vine depends upon the health of the roots. The yield depends on the health of the roots. Disease resistance depends upon the health of the roots.

Nitro Plus 9 is a unique product containing amine nitrogen and calcium. When applied to roots, a big flush of root growth will result.

There are two major periods of root growth (see following chart). Nitro Plus 9 should be applied during these periods.



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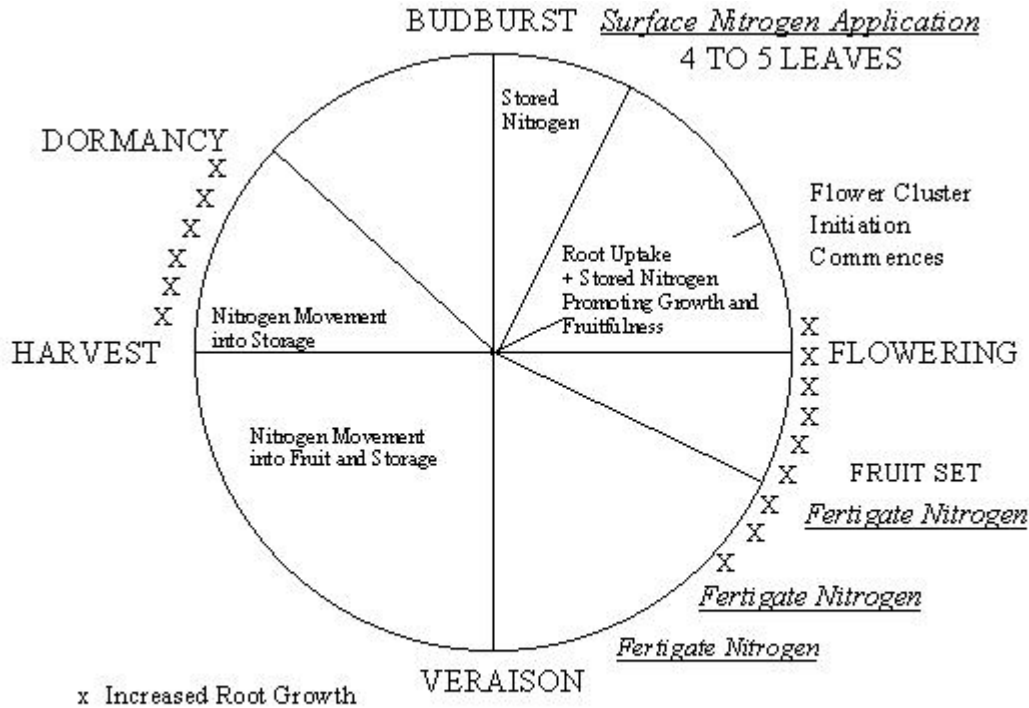


Figure 11.1 Growth cycle of the vine showing the destination of applied nitrogen relative to times of nitrogen application.

PROBLEMS OF SALTY SOIL

Salty soils affect growth by increased levels of sodium uptake into the vine. This upsets the hormone balance of the vine.

This problem will be greatly reduced by using Nitro Plus 9 (see above). In addition, add 8 oz. to 12 oz. of Calcium 5S to each Nitro Plus treatment (depending on the salt severity).

If problems are very severe, an additional 1 to 3 applications can be added to the above.

FORCED RIPENING FOR EARLY MARKET

Apply 1 gallon per acre of SETT with the ETHREL spray.

The use of ETHREL for early ripening will reduce the shelf-life and increase the breakdown of the rachis. The rachis will turn brown on the store shelf. The addition of SETT will inhibit this problem.



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DISEASE CONTROL

Apply 1 pint per acre of ReZist plus 1 pint per acre of Stabilizer (HELP Package) in every regular spray treatment.

This application will make plants more resistant to fungi, bacteria, virus, and nematode toxins. This should result in

- Better disease control from products that are used
- Fewer spray applications.

* If plants are sick (for any reason) apply 2 quarts per acre of ReZist plus 2 quarts per acre of Stabilizer (HELP Package). Repeat application 21 days later. Do not apply more treatments at this high rate.

INCREASING GROWTH OF NEW PLANTINGS

Foliar spray 1 pint per acre of Bio-Forge plus 1 quart per acre of Golden Harvest Plus GA. Repeat every 30 days during the rapid growth season.

The above treatment will rapidly increase growth of both the tops and roots of the plants.