

VERY HIGH RISK GRAPES

(2 Severe or 3+ Risk Factors) (Tested YAN <100 or <150 at 25+Brix)

Add SuperFood® Plus

(78 Added YAN)

and

Add D.A.P.

(95 Added YAN)

	100 gallons or 1,000 lbs. Grapes (9.6 oz)	10 gallons or 100 lbs. Grapes (1.0 oz)	100 gallons or 1,000 lbs. Grapes (5.7 oz)	10 gallons or 100 lbs. Grapes (.6 oz)
Stage 1	3.8 oz	.4 oz	1.3 oz	.2 oz
Stage 2	2.5 oz	.3 oz	2.2 oz	.2 oz
Stage 3	3.3 oz	.3 oz	2.2 oz	.2 oz

HIGH RISK GRAPES

(1 Very Severe or 2 Risk Factors) (Tested YAN 100-150 or 150-200 at 25+Brix)

Add SuperFood® Plus

(62 Added YAN)

and

Add D.A.P.

(80 Added YAN)

	100 gallons or 1,000 lbs. Grapes (8.0 oz)	10 gallons or 100 lbs. Grapes (.8 oz)	100 gallons or 1,000 lbs. Grapes (4.8 oz)	10 gallons or 100 lbs. Grapes (.5 oz)
Stage 1	4.0 oz	.4 oz	.6 oz	.1 oz
Stage 2	2.0 oz	.2 oz	2.1 oz Less if ferment is too fast.	.2 oz Less if ferment is too fast.
Stage 3	2.0 oz	.2 oz	2.1 oz	.2 oz

MODERATE RISK GRAPES

(1 Severe or 2 Mild Risk Factors) (Tested YAN 150-200 or 200-250 at 25+Brix)

Add SuperFood® Plus

(51 Added YAN)

AND

Add D.A.P.

(42 Added YAN)

	100 gallons or 1,000 lbs. Grapes (6.4 oz)	10 gallons or 100 lbs. Grapes (.6 oz)	100 gallons or 1,000 lbs. Grapes (2.6 oz)	10 gallons or 100 lbs. Grapes (.3 oz)
Stage 1	4.6 oz	.4 oz	.0 oz	.0 oz
Stage 2	0.0 oz	.0 oz	.7 oz	.1 oz
Stage 3	1.8 oz	.2 oz	1.9 oz Less if ferment is too fast.	.2 oz Less if ferment is too fast.

LOW RISK GRAPES

(1 Risk Factors, Not Severe) (Tested YAN 200-250 or 300-350 at 25+Brix)

Add SuperFood® Plus

(30 Added YAN)

AND

Add D.A.P.

(8 Added YAN)

	100 gallons or 1,000 lbs. Grapes (4.0 oz)	10 gallons or 100 lbs. Grapes (.4 oz)	100 gallons or 1,000 lbs. Grapes (.5 oz)	10 gallons or 100 lbs. Grapes (.1 oz)
Stage 1	1.5 oz	.2 oz	.0 oz	.0 oz
Stage 2	1.0 oz	.1 oz	.1 oz	.0 oz
Stage 3	1.5 oz	.1 oz	.4 oz	.1 oz

(1 tsp. of D.A.P. = .15 ozs.) (1 tsp. Super-Super Food = .12 ozs.)

(**SuperFood®** = 37 Yan at 4lb/1000 gallons) (**DAP** = 105 Yan at 4lb/1000 gallons)

(**SuperFood® Plus** = 59 Yan at 4 lb/1000 gallons)

- Add the D.A.P. portions *each day* to promote *slower ferments*.
- Reduce D.A.P. portions each day if ferment is too fast.

1 lb of D.A.P. = 125 ppm = 25 ppm YAN (Yeast Available Nitrogen)

1 lb of Superfood® = 125 ppm = 9 ppm YAN (Yeast Available Nitrogen)

1 lb of Superfood® Plus = 125 ppm = 14 ppm YAN (Yeast Available Nitrogen)

HARVEST RISK FACTORS

- **LOW NITROGEN:** Grapes with less than 250 ppm YAN (Yeast Available Nitrogen) at 24° or greater Brix.
- **HISTORY:** Grapes with a history of sluggish or stuck fermentation, *or production of H₂S*.
- **VINE DISEASES:** Grapes from vineyards with phylloxera or other vine diseases.
- **DROUGHT/LONG HANG TIME:** Grapes grown in drought years or dry summer areas, have much lower nitrogen levels.
- **HIGH SUGAR over 25° Brix:**
 - **Rehydrate grapes over 25°B, back to 25°B.**
 - **Recheck sugar again, after soaking on the skins overnight.**
 - **If necessary, re-hydrate again, back to 25°B.**
 - **Do not inoculate with your cultured yeast until sugars stabilize at 25°B.**
- **UNINOCULATED FERMENTATIONS:** Or musts fermented with less vigorous yeast strains.
- **CLARIFIED JUICE:** Bentonite and mechanical clarification can really reduce nitrogen.
- **MLF:** Going through MLF during yeast fermentation before dryness.
- **VARIETY:** Zin, Merlot, Cab. Franc, Riesling, Syrah and Chardonnay in dry climates.
 - **"VERY HIGH RISK" grapes (3+ risk factors, or 2 if very severe)**
 - **"HIGH RISK" grapes (2 risk factors, or 1 very severe)**
 - **"MODERATE RISK" grapes (2 mild risk factors, or 1 very severe)**
 - **"LOW RISK" grapes (1 risk factor, not severe)**

TIMING OF NUTRIENT PACKAGE ADDITIONS

- ❖ **Pre-Stage 1 - Rehydration of Cultured Yeast in "Start Up"**. Growing yeast need nitrogen and a wealth of nutrients, minerals, vitamins, and survival factors to build up enough healthy bio-mass that is needed to start and to complete ferment. Since there is no DAP [inorganic nitrogen/ammonia] in "Start Up", the yeast will get their nitrogen by "eating their amino acids" instead of "spoiling their dinner" by gorging on ammonia/DAP first. Now, your yeast are fully ready to grow when added to the must.
- **Stage 1 - Add 1/3 of the Total Nutrient Addition** when your fermentation is fully active and the Brix have dropped 3 to 4 degrees. (about 48 hrs. after inoculation) At this point, the yeast have taken up most of the nitrogen in the juice, and need more of everything.
 - ❖ **This is also the time to add your M-L starter.** (On the other hand, *if adding M-L after pressing/at dryness, only add "Leucofood"* and add it 24 hours *before adding your M-L starter*)
- **Stage 2 - Add another 1/3 of the Total Nutrient Addition** when your fermentation Brix have dropped another 3 to 4 degrees.
- **Stage 3 - Add the last 1/3 of the Total Nutrient Addition** when your fermentation Brix have dropped another 3 to 4 degrees, at or just about mid-fermentation (8°B – 12°B). The yeast have stopped growing, but the alcohol is low enough that they can still take up extra nitrogen, replenishing the amount needed to survive to complete ferment.
 - ✓ **If, doing "spontaneous/native" fermentation,** add Stage 1, only when *saccharomyces* yeasts, instead of *Kloeckera* and other apiculate vineyard yeast, start growing. Do not feed *non-saccharomyces* vineyard yeast.