

ADDING M/L CULTURE DURING

MLF (Malo-Lactic Fermentation) is more efficient and usually more successful when added *during ferment*, due to the Lower Alcohols and the Warmth of the Ferment. However, **Adequate Added Nutrient** is also needed for both the yeast bugs *and* the M/L bugs. All these conditions are essential for a successful, rapid MLF completion.

(At crush, the Total SO2 must be below 40 ppm for Whites and below 70ppm for Reds. Also, no Lysozyme)

GRAPES	M/L POWDER
100 lbs	.15 grams
200 lbs	.30 grams
500 lbs	.75 grams
1000 lbs	1.5 grams

- Following the how-to instructions, **Re-hydrate your yeast** in “Start Up®” water. **Acclimate** them to the must’s temperature. Then, add to the must.

- ✓ No additional “Superfood™ Plus” nutrient is needed, **yet**, when adding your “Start Up®” yeast slurry to the grape must. **However**, when the yeast have activated and **sugars have dropped 3° - 4° Brix**, the yeast will have used up most of the available nutrients in the must.
- ✓ M/L bugs are not added until the yeast activate and establish themselves.
- ✓ Both the yeast bugs and the M/L bugs need enough additional nutrient so they will not compete with each other.
- ✓ **Then**, both these beneficial bugs, yeast and M/L, need to be feed the required nutrient portions in stages.

- **Add nutrient portion #1** (1/3 of total nutrient package) **after your yeast activate** and the **sugars have dropped 3° - 4° Brix**.

This is now the time to add The Powered M/L (see chart, above).

- **Add nutrient portion #2** (1/3 of total nutrient package) **after the sugars drop another 3° - 4° Brix**.
- **Add nutrient portion #3** (1/3 of total nutrient package) **after the sugars drop another 3° - 4° Brix**. You should now be at about mid-fermentation.

Note: Most wineries add M/L bugs **after ferment**, after pressing, because they are not set up to do otherwise, or they are unaware of the above timing and nutrient demands. M/L bugs added after ferment are working uphill against all the odds and often don’t finish until the next summer.

IF ADDING M/L AFTER FERMENT

(Keep cellar at 65 – 75 °F until MLF is complete)

CONTAINER	LEUCOFOOD™ PLUS	MIXING WATER (o.k. to use wine)	M-L POWDER
1 gallon	.4 grams	3 mls	.02 grams
3 gallon	1.2 grams	10 mls	.07 grams
5 gallon	2.0 grams	15 mls	.12 grams
7 gallon	2.8 grams	20 mls	.16 grams
15 gallon	6.0 grams	50 mls	.32 grams
60 gallon	24.0 grams	200 mls	1.44 grams

Whisk together the Leucofood™ Plus and the Mixing Water, until dissolved. Mix into wine. Then sprinkle in the M/L Powder.