Grapes

For Enhanced Vineyard Productivity

DiTera® DF Nematicide is a natural choice to protect roots from nematode damage.

- Protects roots DiTera stops nematode damage which can sap your vines of important nutrients
- Promotes healthy growth
- Farm friendly biological product has a short 4 hour reentry interval, and is approved for organic production

Results of DiTera Root Zone Protection

Data from a Zinfandel vineyard (Freedom rootstock) showed excellent vine vigor following *DiTera* treatments of 10 lbs/A over a cycle of three treatments in the spring, fall and spring.

-	Untreated Control	DiTera DF	DiTera % difference vs. untreated
Cane Length Inches	9.5	10:2	+7%
Dagger Nematode Count	1134	684	-40%

How To Use

Rate	20 lb/A per season – see over for suggested DiTera program			
Timing	For best results, apply in both spring and fall			
	 Post harvest: September – November 			
	 Prior to root flush: March – May 			
	 Apply when soil temperatures are greater than 55°F 			
Method	Injection into drip system or berm spray			
	 Premix product in tank following label directions 			
	 Drip irrigation – apply during the last portion of the irrigation set 			
	 Berm spray – direct spray at root zone. Incorporate with adequate irrigation. Use one hour of overhead irrigation. 			

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Other Important Information

DiTera can be used with deficit or conventional irrigation vineyards.

Select from one of three *DiTera* DF programs. For best results, continue the following season with the same program.

	Post-Harvest Application			Spring Root Flush		
	September	October	November	March	April	May
Program 1		10 lb/A			10 lb/A	14
Program 2		10 lb/A		5 lb/A		5 lb/A
Program 3	5 lb/A		5 lb/A	5 lb/A		5 lb/A

How to Identify a Nematode-Infected Vineyard

Visual symptoms of a harmful population of nematodes include:

- · Poor vine growth, small or stunted vines, fan-leaf virus
- · Decline in yield, poor or low berry quality
- Loss of feeder roots
- Increase in nutrient requirements due to poor uptake
- · Root malformation (knotted, discolored, stubby and stunted)

Vineyard soil sampling is recommended to verify nematode populations. Contact your local PCA, farm advisor or soil diagnostics laboratory for specific instructions on sampling. While samples can be taken anytime, it is best to sample when soil is moist and in winter months.

How many nematodes are too many?

Nematode	Population / 1 kg soil	Damage	
Root-knot	75-500	Extensive (yield, vigor decline)	
Dagger	20-200	Extensive (yield, vigor decline)	
Ring	50-500	Moderate (vigor decline)	

