

This 8-acre 2006 planting of Nonpareil/Fritz (75/25) compares three production systems; **Conventional**, **Transitional** and **Organic**. The conventional trees are farmed with typical production practices. The transitional trees were farmed conventionally for 3 seasons and then converted in 9/1/08 to organic practices. The organic trees are produced using USDA organic and CCOF standards. Weed control and nitrogen fertility have been the most challenging issues in the organic system.

	N %	P %	K %	S ppm	B ppm	Ca %	Mg %	Zn ppm	Mn ppm	Fe ppm	Cu ppm
STANDARD	2.79	0.14	2.45	2085	42	4.00	0.95	100*	91	298	7.4
TRANS	2.78	0.14	1.95	1970	39	4.19	1.06	18	115	265	16.2
ORGANIC	2.52	0.14	2.02	1860	41	4.39	1.06	15	98	277	16.4

System	Yield lbs/Ac	Kernels/Oz	Trunk circ. Cm
Standard	1,195	23	41.5
Transitional	1,217	24	40.7
Organic	841	23	39.2
Organic & weed cloth	963	23	40.0



Subsurface drip irrigation at harvest

The high percentage Nonpareil planting will limit the brown rot susceptibility of the overall planting as Nonpareil shows some tolerance to *Monilinia laxa*, while the Fritz variety is highly fruitful and a leading single pollinizer for Nonpareil.

F		N		N		N	
	N		N		F		N
N		F		N		N	
	N		N		N		F
N		N		F		N	
	F		N		N		N
N		N		N		F	
	N		F		N		N
F		N		N		N	
	N		N		F		N
N		F		N		N	
	N		N		N		F
N		N		F		N	



Subsurface drip irrigation at harvest

The surface drip system was replaced in October 2007 with a dual line subsurface drip to reduce weed growth, seed emergence and weed control costs. This has reduced propane flaming expenses significantly.

FIELD PRACTICE	STANDARD	\$	ORGANIC/TRANS	\$
Nutrition				
-nitrogen	UAN 140 lbs N/ac	70	sodium nitrate 50lb.N/ac	100
			Phytamin 4-2-2@44 lb N/ac	400
-boron spray	Solubor @2.5lbs/ac	25		
-potassium	70 lbs K2O/ac KNO3 @ 20 lbs	115		
-zinc spray	Zinc sulfate 10lb/ac	25		
-compost			5 tons/acre	125
Weed control				
-herbicides	Glyphosate + Goal 3 x @ \$15	45		
	Pre-emerge Matrix	45		
-propane			90 gal @ \$3.50	300
			10 flamings @ .75 hr	120
-hoeing	weedeater		8 times @ 0.5hrs @ \$12	48
-mowing	5 times@ \$6	30	5 times @ \$6	30
Insects				
-dormant			5 gal veg oil + 10 lb cu Nordox	25+35
-mites	Agrimek @12 oz	80		
-PTB	Dimilin @ 12 oz	45	Entrust @ 2.5 oz	50
-NOW	Asana @ 9 oz	30		
Disease				
-blossom	Rovrol @ 16 oz + oil	45	Wettable sulfur @ 10 lbs	22
-leaf	Pristine @ 12 oz	60	Wettable Sulfur @10 lbs	22
			Actinovate @ 12oz + ThermX @ 3oz	70
TOTAL COSTS	Includes application costs	\$615	Includes application costs	\$1,347



