2010 CHERRY SPRAY PROGRAM

DORMANT SPRAY (Stage 2) (Coryneum Blight)

Cuprofix*	10 pounds/acre
Nu-Cop 50DF** OR Nu-Cop 3L +Nufilm 17	10-12 pounds/acre 1 gallon/acre 1 pint/acre
Zinc Sulfate +Tech Spray Mg	20-40 pounds/acre 8 ounces/100 gallon
*Cuprofix will work well with young trees for Pseudomona. **This copper spray may be added as a preventive measure to any pre-bloom spray in a 'clean' orchard. **All rates are shown per acre except those products where concentration of material is important.**	

Apply after buds have begun to swell but before green tip. Temperatures should be expected to reach high 40°F or above on days zinc is applied. Be sure and shut off early enough in afternoon so that the last tank of spray will have plenty of time to dry before temperatures begin to drop. Northern districts or individual orchards that are experiencing problems with Pseudomonas should make multiple applications. Apply the first as early in the spring as it is possible, another light rate pre-bloom to reduce the risk of frost damaged tissue becoming infected, then again in the early in the fall before or during leaf drop.

DELAYED-DORMANT (Stage 3–4) (San Jose scale, European Red Mite, Two Spotted Mite* Black Cherry Aphid)

Dormant Oil**	3-5 gallons/acre
Chlorpyrifos OR Esteem	2 quarts/acre 5 ounces/acre
Tech-Flo Zeta Zinc 22%	2 quarts/acre
Micronized Sulfur	6 pounds/acre
B-17 (Boric Acid Spray)	3 pounds/acre
Nu-Cop 50DF***	8-12 pounds/acre
Nutri-Cal 8%	2 quarts/acre
Mira Cal	5 pounds/acre
*If large numbers of Two Spotted Adults have over-wintered and are beginning to move up the tree, use Diazinon & oil now. Monitor the population closely at petal fall for possible control with Vendex for additional control of adults, or a Vendex/Apollo combination if there have been appreciable eggs deposited before the application is made. **If Spider Mites or Scale were not problems last season, oil is not recommended because of the uneven delay of bloom. Black Cherry Aphid will be controlled with Provado as needed. ***If copper was not applied during the dormant time period.	

Apply from green tip stage to tight cluster. This spray should be on before any cluster separation is evident. Temperatures should be expected to be in mid 40°F or above on days oil is applied. Shut off early enough in afternoon so that last tank will have plenty of time to dry before evening. Do not apply oil within five days of zinc sulfate. Pre-bloom spray may be a better option than a delayed dormant spray on cherries unless Pandemis control is needed.

PRE-BLOOM (Cutworms, Black Cherry Aphid, Grape Mealybug)

Diazinon 50W*	4 pounds/acre
Assail	3.4 ounces/acre
Tech-Flo Beta	2 quarts/acre
Tech Spray Moly Mag OR Hi Mag	2 quarts/acre 2 quarts/acre
Tech-Flo Cal-Bor+Moly	2 quarts/acre
Mira-cal OR Inca	5 pounds/acre 1-2 pints/acre
B-17 (Boric Acid Spray) OR Liquibor	3-5 pounds/acre 1-2 quarts/acre
Tech-Flo Zeta Zinc 22%	2 quarts/acre
Calcium Nitrate (Spray grade) OR Urea	10 pounds/acre 8-10 pounds/acre
Nu-Cop 50DF**	8-12 pounds/acre
Esteem***	5 ounces/acre
*Apply this spray before first white with no bees in the block. Use Diazinon if Grape Mealybug is a target. Diazinon used at this timing will not leave a harvest residue and will save the single allowable use per season of Thiodan for shuck fall on Green Soldier Bug. **If copper was not applied during the dormant time period. ***Esteem should be used here for scale control if oil wasn't used earlier in the season.	

Cherry fruit size equals money. Cherries will respond favorably to an aggressive foliar nutrient program that begins pre-bloom and extends through pit hardening, about two weeks after shuck fall. See the nutrient section for possible additional timing and materials. This is the right timing to add sulfur and magnesium to your nutrient programs.

BLOSSOM SPRAY (Brown Rot)*

Elite 45DF OR Orbit OR Rally 40W	8 ounces/acre 4 ounces/acre 5 ounces/acre
*Nutrients may be combined at this timing and at Petal fall.	

If Brown Rot is an annual problem, make the first application at white bud, a second application at 50% bloom, followed by a petal fall spray if the bloom is prolonged or weather conditions are conducive to fungal infections. Where fruit rot has been a problem, pre-harvest applications are also necessary. Do not apply more than 3¼ pounds of Rally 40W per acre per season.

PETAL FALL TO SHUCK FALL (Pandemis Leafroller, Black Cherry Aphid, Grape Mealybug, Stink Bug, Thrips, Mildew)

Intrepid 2F* OR Success*	10-12 ounces/acre 4-8 ounces/acre
Thiodan 50WP**	4 pounds/acre
Tech-Flo Sigma	2 quarts/acre
Tech-Flo Hi Mag	2 quarts/acre
Tech-Flo Cal-Bor+Moly	2 quarts/acre
Tech-Flo Beta	2 quarts/acre
Mira Cal Sp OR Inca	5 pounds/acre 1-2 pints/acre

Tech-Spray Mg	0.25 pint/100 gallons
Calcium Nitrate (Spray grade) OR Urea	10 pounds/acre 8-10 pounds/acre
*Include Intrepid only if Leafroller has become a threat to your crop, or there is threat of spread to adjacent crops in the next generation. Success will help if Thrip is a problem. **NOTE: Thiodan is the only material effective against the Green Soldier Bug. You may not use more than 3 pounds (4 quarts EC or 6 pounds WP) of active ingredient per year, therefore do NOT apply Thiodan at both pre-bloom and shuck fall. Do not apply Thiodan within 300 feet of any lake, stream or pond. Closed cab restrictions will apply for Thiodan in 2010. Assail is the alternative product. **All rates are shown per acre except those products where concentration of material is important.**	

Apply this spray shortly after the first mildew infection episode. Consider the first post bloom irrigation to be a mildew infection episode if the temperature is above 50°F. This is the proper timing to apply size enhancement sprays such as Cytokin. Refer to Northwest Wholesale fieldmen for rates. Nighttime temperatures in the mid to high 30°F at this growth stage may be contributing to pre-harvest leaf drop. Consider delaying the oil application until nighttime temperatures are in the 40°F range. Mildew will not be advancing very rapidly with the cool temperatures and the oil will be an effective eradicant when it is used. Coverage is critical for mildew control.

See the **Cherry Mildew Program** for further details on mildew timing and materials and a model mildew control program.
See individual programs for sprays between shuck fall and fall copper sprays.

FALL SPRAY (Coryneum Blight, Bacterial Gummosis)

Cuprofix	10 pounds/acre
Nu-Cop 50DF OR Nu-Cop 3L +NuFilm 17	10-12 pounds/acre 3 gallons/acre 1 pint/acre

Apply in early to mid fall, before cool wet weather sets in. Zinc Sulfate, Boron and Urea may be added to this spray after early October. See fall nutrient spray.