



AGRONOMY DIVISION
421 BIRCH-BAY LYNDEN RD
LYNDEN, WA 98264

ON THE HORIZON:

- Fall soil sampling
- Lime or Diamond K gypsum applications on raspberry and blueberry fields
- Review yield data and 2011 crop budgets
- Dormant copper applications on blueberries and raspberries
- Scout and apply herbicides where necessary
- Drainage and root disease evaluation

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(Please see your crop advisor for specific recommendations for your situation. No guarantee is written or implied in this newsletter. Always follow manufacturer's label.)



The Berry Good News

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Phosphorous and Small Fruit

Phosphorous is one of the most important nutrients for fruit production. For local growers, phosphorous and its two chemical forms could be the most challenging yield-limiting factor we face. Plants uptake phosphorous mostly in the orthophosphate form, H_2PO_4 . The most important fact a grower needs to know is that your plants are getting what they need, when they need it. Western WA poses some unique challenges for uptake. Soil biology, cold spring soils, high aluminum levels, high iron levels, low pH soils, anaerobic conditions caused by flooding, extremely high concentrations of organic matter, recent lime applications, and tillage, will adversely effect phosphate uptake. A successful grower needs to under-

stand how these factors will affect crop production. Soil scientists will agree that balanced levels of calcium, magnesium, sodium, hydrogen and potassium in your soil are crucial for phosphate uptake in plants, resulting in optimum anion exchange capacity and more phosphate in soil solution. Planning with a crop advisor is the first place to begin. Well balanced soils may take years to develop and will most likely include lime or gypsum applications. Know what you need, when you need it, and plan. Consider these points when applying phosphate:

- **Determine rates based on soil tests and target yields.** remember more is not always better!

- **Always include aluminum and iron tests** when soil testing to be aware of phosphate availability.
- **Choose the right phosphate source for your crop,** such as Structure 7-21-0, 11-52-0 with Avail, or Nachurs blend liquid fertilizer.
- **Time your applications** according to seasonal crop needs
- **Take plant tissue samples** to insure adequate nutrient levels
- **Visually observe your plants** for any nutrient
- **Develop a fertility plan** with your crop advisor.

Maximizing Pesticide Efficacy with Vintre

The past growing season presented growers new challenges. SWD control is currently our biggest challenge. Adjuvants used correctly can enhance fungicide and insecticide performance. This past season the Elenbaas Co. introduced Vintre, an essential oil based product, to our growers.

We are excited about the performance of this product, many of you have reported to us that Vintre improved mite control. Our staff has observed excellent spreading properties. Research shows that Vintre, an essential oil based product, actually has insecticidal and fungicidal activity. Photosynthesis and plant respira-

tion is suppressed for a few days after application by petroleum based products. Vintre studies show us we can reduce these detrimental effects by replacing traditional petroleum based products with Vintre. We can provide you with all the information and training to enhance your pesticide efficacy with Vintre.

Its here, The Berry Good News!

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WINTER DORMANCY AND SOIL BORNE ROOT DISEASES

Much attention has been focused on the causes and effects of root diseases in small fruit. Ongoing research in plant genetics, preventative crop protection products, and cultural practices will hopefully give growers good control of phytophthera and verticillium for years to come. Growers and consultants may find it helpful to evaluate your fields now to mitigate the effects of poor drainage, weather events, and tillage practices. Many of you sample your soil for phytophthera R. to confirm its presence and we find it present everywhere. All growers and consultants know the consequences of a full

blown field infection and know how devastating that can be to your bottom line. A few steps may be all it takes to controlling these diseases. Field selection is the most critical decision you will make. Soil surveys, cropping history, seasonal drainage observation, and both nutritional and disease testing of soil and plant tissues will give the grower a clear picture of challenges you might face and ward off financial disaster before your crop is planted. You might need to laser level your field, install drainage, or simply get out the hand shovel and dig some simple trenches to protect your crop. Careful con-

sideration of varieties and plant propagators is definitely worth your time. A multi-faceted management approach through the use of Ridomil, Actagro Resist, field drainage, irrigation management, will help ensure your success. Our consultants are willing to help you create a specific action plan for each of your fields. Winter is a great time to observe drainage issues, discuss past season observations, and sanitize and maintain irrigation systems. Now is the time to plan basal Resist applications for late winter and early spring as weather permits.



Flooding can cause soil borne disease challenges

FOCUS ON FERTILITY: ZINC (Zn)

Zinc is an essential micronutrient for all plants. Most soils, in crop production, are zinc deficient. Zinc is especially important for sugar formation in small fruits, cherries, peaches, just to name a few. Without adequate zinc tissue levels, a plant would have a very hard time regulating its seasonal growth. Peat soils with their high organic matter

levels and low PH make plant assimilation of zinc difficult, this can be challenging if you grow blueberries.

Soil testing, plant tissue analysis, and general visual observation for nutritional deficits are a growers best defense against zinc deficiencies.

Zinc is easily supplemented through dry fertilizer blends, drip irrigation, or foliar sprays. We feel

drip and foliar applications are more effective than granular applications. Stollers Urea Mate w/micros and Actagro Zinc 6.5% are two grower favorites at the Elenbaas Co. Talk to us, we will help your avoid zinc deficiencies in your crop. Plan now to avoid in season problems, we are here to help you.



Colby Croft, Rodney Gomez, Randy Kragt inspecting raspberry canes