



Fruit & Veg Advisor

TerraLink Horticulture Inc.

Fall 2011

Pest Control

Do You Need to Fumigate?

Fumigation is a big expense at the beginning of the life of a perennial crop such as raspberries. Make absolutely sure you need to before you order, so send a sample to a lab and if necessary speak with a qualified agronomist. The reasons for fumigation are sometimes misunderstood. Often, people are of the belief that if they fumigate, their planting will be safe from soil-borne pests for the life of the stand. This isn't true. The only reason to fumigate is to reduce one or more target soil-borne pests to a low enough level to give your new plants the best chance of a fast and vigorous start. Once established, only your management methods can prevent re-infestation of pests. With good field hygiene, you can maintain low pest levels for years.

In raspberries in the Fraser Valley the main target is the root lesion nematode (*Pratylenchus penetrans*). Other species of nematodes also infest raspberries but the root lesion nematode is the main one. Fumigation can also be used pre-plant for control of soil-borne root disease pathogens such as phytophthora, rhizoctonia, pythium, fusarium, and verticillium.

Terralink has offered a custom fumigation program since the early 1990s with Vapam. A new formulation, Vapam HL, is now available and is a more concentrated form so the rates have changed slightly. Unique in British Columbia, we use a combination deep shank applicator and rotovate and roll system, all in one unit. With one pass over the field, our powerful tractor can pull the rotovator and shank injectors at full depth, providing coverage down to 16 inches depending on the soil type and the pre-fumigation soil preparation. A hydraulic

roller packs the soil surface to provide a good seal to prevent escape of gases. Our system has developed over the past 20 years and is known widely as the most effective fumigation service in the industry. We are taking orders for fall and spring fumigation now.



Save Money and Time!

Fall Limestone Application: Makes Sense, Saves Dollars!

The best time to apply limestone to your fields is in the fall. There are two main reasons for this. First, from an agronomic point of view it makes the most sense. What happens when limestone is applied to soil? In Fraser Valley soils there is an abundance of aluminum, which naturally reacts with water to produce hydrogen ions (H+). The presence of a concentration of H+ creates acidity. When limestone (calcium carbonate) is added to the soil, some of the calcium replaces aluminum at the cation exchange sites. Meanwhile, some of the carbonate combines with hydrogen to produce water and carbon dioxide. This reaction is not instant, especially if the limestone is not incorporated.

Typically several months pass before the biggest change in pH takes place. If limestone is applied in the fall the pH should be increased just in time for fertilizing time in the spring.

The second reason for applying limestone in the fall is time. The fall is typically drier than spring so fields are better able to handle the weight of spreading equipment without damaging the soil. Application can be timed directly following harvest. Also, bad weather in the spring with wet soils often means we can't get to all the orders in time prior to planting. Inevitably, some are cancelled and yield and quality are compromised. It makes far more sense to do some of the spreading in the fall when we can quickly drive across dry fields. For Terralink, this means less overtime, too!

Fall Special!

From October to December 31st, Terralink will offer \$3.00 per tonne discount on minimum spreading orders of 20 tonnes, minimum application rate of 2 tonnes per acre. Take advantage of this Fall Special, effective on both the cost of limestone and the spreading service.

Plant Science Lab

Soil Testing: Now is the Time!

Fall is the best time to soil test. Why? Several reasons: except for nitrogen and sulphur, the other nutrients don't leach over winter. What the lab test shows in the fall is generally still present in the spring. Your recommended rates for



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nitrogen and sulphur are based more on crop removal than soil test levels, so unless you are engaging in a Nutrient Management Plan, part of an Environmental Farm Plan, don't worry about them. Second, both the labs and the folks who conduct soil testing are less busy than they are in the spring. Last, fall testing allows you more time to apply limestone if it is required, should the soil test indicate your field has become too acidic, as it is always drier in the fall.

A Detailed test package at TerraLink's Plant Science Lab includes pH, organic matter, salts, nitrate-N, phosphate, potash, sulphur, magnesium, calcium, boron, copper, zinc, manganese, iron and base saturation. You wouldn't want your crop to suffer yield or quality because of some minor nutrient that has strayed a little low. It is a good investment. For example, a Detailed test package costs \$64.95, which spread over a 10 acre field is \$6.49 per acre. Over a 30 acre field the cost is only \$2.17 per acre.

Fall Field Maintenance

What's Happening in Your Crop?

BLUEBERRIES:

- **Weed Control** – Touchdown plus Chateau can be done now on plantings 2 years and older.
- **Disease control** – Copper sprays will start at 50% leaf drop, tank mix copper spray and Liberate spreader and Antistress.
- **Insect control** – As of last week SWD counts were up, so late varieties should still be applying SWD insecticides.
- **Cultural** – Pruning either to remove diseased wood or annual pruning. Most growers will wait until the leaves have dropped for annual pruning so the plant structure can be seen. Shavings can be applied to raised beds.

RASPBERRIES:

- **Vydate** – For nematodes, apply between end of harvest and end of October.
- **Ridomil** – For root rot apply before November 30. Apply just before rain as a root drench.
- **Weed control** – Sinbar for application to fields at least one year old for pre-emergent control of annual weeds. Can be tank mixed with Devrinol 50DF. For use on soils having 8 to 10% organic matter. Apply as a directed spray to avoid contact with crop foliage and apply only once per year. Gramoxone can be used for emerged weeds.
- **Cultural:** removal of old fruiting canes can begin.

Good Agricultural Practices

Fall Nitrate Testing in Raspberries

Post harvest nitrate testing (PHNT) is basically a report card on how much of the N you applied is left over to leach out at the end of the growing season. It makes use of the Agri and Agri-Food Canada's nitrogen model developed for use in our raspberry industry. In this model, a fall nitrate test is combined in a formula with other field parameters such as whether manure was used and whether a fall cover crop was planted. It provides a more accurate recommendation for nitrogen fertilizer in the following spring.

A high level of soil nitrate in fall may indicate:

- Poor plant health not allowing roots to uptake the fertilizer applied.
- Too much nitrogen fertilizer or manure applied

Excess nitrogen of course will leach to the ground water, possibly polluting the aquifer. This will be an increasingly important issue in coming years. The PHNT will be in the nutrient section of Environmental Farm Planning. It can be considered a Good Agricultural Practice (GAP).

The cost of a nitrate test is \$29 with our Plant Science Lab. For a 10 acre field this is only \$2.90 per acre and is an inexpensive way for you to know exactly how much nitrogen you have in your raspberry field in the fall.



Recycling Helps the Environment

Obsolete Pesticide Collection Days

Once again, CleanFARMS, with assistance from the federal government, provincial government, Investment Agriculture Foundation of BC and the BC Agriculture Council, have organized dates for collecting unwanted pesticides. Collections commence this fall in southwest BC. Now is your chance! Get rid of old, useless, un-registered, unwanted and dangerous chemicals that are slowly corroding through the bottoms of their containers in the back of your chemical sheds. Got Parathion? Now is your chance to get it out of your shed. How about DDT? Incredibly, every year a little bit more still shows up. No one asks your name, no questions asked, and its free.

Since 1998, over several collection events, over 185,000 kg of obsolete pesticides have been brought in by BC producers wanting to dispose of old chemicals in an environmentally responsible way. Even unlabeled products can be brought in. What cannot be returned are household pesticides, industrial chemicals, paint, solvents, adjuvants, liquid fertilizers or treated seed.

Mark these dates and locations on your calendar now!



Date	Location
Oct. 11-12	Evergro Canada Inc., 7430 Hopcott Rd., Delta
Oct. 19-20	Abbotsford-Mission Recycling Facility 33670 Valley Rd., Abbotsford

Convenient Location

Chemicals Available in Delta

Don't forget, you can buy chemicals from TerraLink by going into Roddick Feed, Farm and Garden at 4119 – 40th Street in Delta which may be faster for you then coming out to Abbotsford or waiting for a delivery. All herbicides, insecticides and fungicides are stocked there in-season, and the friendly staff can help you just like in Abbotsford. Billing of chemicals is on your TerraLink statement as normal. Come in any time, or call 604-946-8338 to order ahead and have your chemicals waiting for you.