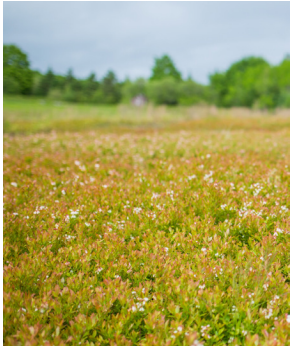


Field Services



Introduction

Every farm is unique with unique financial and production challenges. There is no one strategy that will work on every farm and farmers really do need to look at their own situation and make adjustments that work for them. Saying that there are some realities that need to be considered. I wrote in a previous article that historically low yielding fields are unlikely to be profitable in the current market situation, if you are managing them conventionally and selling the berries through the processors. If farmers have low yielding fields they should consider alternative marketing strategies, or simply rest those field and take them out of active production. The question still remains how should we manage very good fields in a low field price environment?

Look closely at your inputs and yields

It is very difficult to make sound decisions without good information on individual field productivity. What is the historical yield (i.e. five-crop average)? What are the average input costs per acre over the last five crops? Does the difference leave you in a positive or negative situation when you look at a range of projected farm gate prices? You also have to factor in the fixed costs (i.e. equipment and land loans) that need to be serviced by any profit per acre you make. After you have looked at all of this you can then look at your inputs and ask yourself, "What is absolutely needed to give us a chance at a profitable yield?" It is a complicated answer because of the perennial nature of the crop. Inputs that you have applied over the last

four to five years have impacted how the plant grows, how it stores carbohydrates and how weed, insect and disease populations have endured. I am sure there are clean, healthy fields that have a good chance for a very good yield, with minimal inputs, because of how they have been managed over the last several years. That being said there are several critical points in the production cycle that always need to be considered in order to give yourself a chance at a profitable yield.

Weed Management

Adequate weed management is the base for a good wild blueberry production system. Without adequate weed control all other inputs become less efficient and the chance for a decent yield becomes very challenging. A point I want to be clear on: adequate weed control does not mean weed free. The key for a weed management program is to have a field relatively weed free in the sprout year. Weed density may look bad from the roadside but if it doesn't drastically affect blueberry stem density or height, the impact will likely be low. Dense grasses, and dense sheep sorrel populations tend to be the main culprits for yield reduction. When these weeds are dense, they need to be managed if you hope to have a good yield. If you are planning to keep a field in production weed control in the sprout year is critical.

Fertility

Having a healthy plant with sufficient nutrient levels is important to getting a good yield. But if you are planning on reducing other inputs (i.e. herbicides and fungicides) you

need to look at reducing fertility amendments to maintenance levels. Higher fertility rates push blueberry stem density and height, but they can also push weed growth and directly and indirectly increase disease pressure. Reducing fertility rates should be done on a field by field basis and with the best information you can get (i.e. yield histories, disease histories, weed populations and nutrient levels in the leaves). If you have been on a regular fertility program on heavier soils you can potentially cut back in the short-term. The elimination of fertility amendments will result in a reduction in plant health and/or yield over time.

Sprout Year Disease

Managing leaf rust is critical to maintaining good yield potential. Leaf rust has become a key disease that can limit yield potential. Keeping leaves on the plant into the fall allows for a greater number of fruit buds and better sizing of those fruit buds. It also allows the plant to store more carbohydrates in the root system. One application of a leaf rust protectant in late July to early August will give good leaf retention well into October.

Crop Year Disease Control

Crop year disease pressure is very much weather dependant. However, over the last several years, one well-timed *Monilinia* treatment has provided very good control for many growers across the province. Focusing on an application timing where more than 40% of the fruit buds are open just prior to an infection period often gives the best control.

Botrytis is the second major crop year disease that should be looked at. Realizing some areas of the province have more pressure than others through bloom, I believe many inland fields can get very good protection with one application in early bloom. That being said, if it is dry through bloom, there may not be a need to apply a product to control *botrytis*.

Pollination

Pollination is a critical component of a good crop. However, if you have not done adequate weed control and not protected against diseases, the return on investment for high stocking rates of hives can be variable. If you have done the basics, pollination helps to guarantee a solid yield. Growers should consider keeping pollination densities at 2-3 hives per acre on fields with very good yield histories (>6000 lbs per

acre). Growers should still consider using pollinators on fields that have had average yields in the 4000 lbs/acre range, but they need to be very cautious about the number of hives they use on a per acre basis.

Blueberry maggot

The one major pest that can completely ruin the marketability of a crop is blueberry maggot. We cannot forget to monitor and treat for blueberry maggot when appropriate. Growers are encouraged to monitor their fields closely and treat fields as required. When adult captures are low, perimeter sprays can help control the population and minimize costs. If we see high capture numbers, it is critical to treat for this pest.

Management Summary

If all of these critical points in the production cycle are addressed and treatments are applied at the right time, it is likely that mature fields can still get very good yields. A fundamental point to managing a reduced input system is completely understanding what is happening in each of your fields. This means regular visits to your fields, understanding the stage the field is at and making treatment decisions based on weather forecasts and crop stage. Growers need to look more at site specific treatments, where only sections of fields may need to be treated. As well, the timing of treatments and the environmental conditions at application become critically important. You need to make sure the products you are using are getting to the target and they are being effective. The importance of a well-developed IPM system becomes very evident when revenue becomes constrained.

As with any farming enterprise, the plan that works for your farm is unique and has to be developed considering all the unique field and economic conditions your farm has.

For more information or discussion on how to begin an input restrained management plan contact:

Peter Burgess, MSc, PAg, CCA
Wild Blueberry Specialist
Perennia Food and Agriculture Inc.
Office: 902-896-0277 ext 233
Cell: 902-890-0472
pburgess@perennia.ca