

Field Services



Introduction

Crop rotation and fallowing fields are age old agronomic practices that have big benefits in annual cropping systems. They can help break pest cycles, some can help build soil organic matter and when looked at over the long term, many can reduce input costs. I've often thought a fallow or "rest" period in a wild blueberry production system could have multiple benefits that could help the long term sustainability of a field and help to reduce some of our pest issues.

Over the last five to ten years I've talked about resting sections of fields or whole fields to allow blueberry plants to recover and to gain control over spiralling input costs on struggling fields. With the current economic issues facing the wild blueberry industry, many growers are looking to take lower yielding fields out of production in an effort to reduce costs and minimize losses. This is a sensible approach but, some thought should be put into this strategy, to not only minimize the financial risk in the short term, but allow the field to gain from the benefits of a rest and to make it relatively easy to bring a field back in to full production when market conditions improve.

Should I Be Growing Wild Blueberries On This Field At All?

To be blunt, there are some fields in Nova Scotia that should not be in commercial production of wild blueberries. There are examples of fields across the province where historical yields have been low (<2000 lbs per acre) and increasing inputs have not resulted in increased yields. Poor soil conditions, poor drainage, challenging terrain and other site specific features are often the cause. When prices were high, losses on these poor fields were often masked by other high yielding fields on the farm. However, low farm gate prices make it very clear that these poor fields don't pull their own weight. Some have tried to improve these fields through leveling, soil amendments and drainage. We need to remember that all of these land improvements cost significant money and the return on that investment could be very long particularly on marginal fields. Plant coverage is another factor that will really hurt productivity. If a field was developed when plant coverage was too low (i.e. 20%), you often see slow plant spread with conventional management practices. I have seen fields that have been in development for close to 20 years and still have less than 50% plant coverage. It is very hard to make a profit on these kind of fields using traditional management and sales to a processor. Farmers should take a hard look at these marginal fields, and really assess if they are worth continuing to sink money into them.

Resting Fields That Aren't Profitable In The Current Markets Situation

The harder decision for many farmers are those fields that have had historically decent yields (>2500 lbs/acre) and make a profit when farm gate prices are close to the current rolling five-year average of \$0.55/lb. These fields often have good plant coverage but have one or two challenges that either raise input costs or suppress yields. A newly developing field that is getting close to full production but is still a few years away from maturity would be a common example. Perhaps it could be a field where you are struggling with fescue or sheep sorrel populations. The yield potential could be there, you would have to spend a lot of money to have a chance to get it, but the yield potential is unknown. These types of fields could be considered for a rest period.

If it is a field that you eventually want to bring back in to production, it is important to know that an effective rest does not mean do nothing or no cost. A wild blueberry field, in our eco region, is essentially a forest waiting to happen. Spruce, fir, maple and poplar trees will begin to repopulate a field relatively quickly. Also, allowing wild blueberries to flower and fruit can create challenges for neighboring fields that you might still have in production. These fields become a source for blueberry maggot, they pull pollinators away from the fields in production during bloom, and they can be a source for disease (Monilinia, Botrytis etc.) that could impact neighbouring fields and could also cause challenges when the field is brought back in to production. There are some basic and relatively inexpensive inputs that need to be carried out to keep the field developing and in a state ready to bring back in to production.

The Benefits Of Resting

Conventional management of wild blueberries requires multiple trips across a field with tractors, sometimes when weather and soil conditions are not ideal. Rutting, compaction and plant damage can contribute to reduced plant health and in some cases has led to plant coverage reduction. Also,

many common weed control strategies leave bare soil. This can have big impacts on field sustainability, especially on heavy soil or sloped terrain. Loss of soil through erosion or heaving of patches in the spring can lead to reduced plant health and an actual reduction in plant coverage. Resting can allow the plants to spread by keeping bare areas covered in vegetation and increasing soil organic matter content.

I have seen multiple examples over the last ten years where fields have been rested and when they are brought back into production, the plant health and coverage has improved.

What To Consider When Resting A Field

When resting a field there are some principles growers should consider as soon as the field is last harvested.

Mow the field tight in late fall or spring.

- A tight mow will force the stems to grow vegetatively off the rhizome which will force plant spread.
- A key is to not let the plant flower

If the field is a developing field, a small amount of **fertilizer with low nitrogen levels could be considered**, but while nice to have, this is not a needed input in a resting cycle. Over applying fertility when not using herbicides can be detrimental in some conditions, so caution should be observed.

Consider clipping in mid-summer.

- If weeds start to grow, clip the field high, to limit seed production of the weeds.
- If you clip the tops of the blueberry plants it is not of great concern, it may encourage more branching of the plant.
- Consider timing the clipping after the major weed in your field has flowered but before seed formation. This will provide a food source for native pollinators.
 - This can be done quickly with a bat wing or a bush hog.
 - If weed densities are low clipping is not required

- Consider only clipping the sections that have higher weed populations.

Consider targeted spot application of herbicides in late July, particularly if you have patches of challenging weeds (i.e. sweet fern, barren berry, wild rose, yellow loosestrife etc.). Wick wiping or spot treatments are relatively inexpensive and will keep harder to control weeds in check.

Mow tight again in the late fall or early spring to force the plant into vegetative growth the following year.

I think many fields could get away with simply mowing the field in the fall once a year. But growers need to realize that this decision needs to be made on a field by field basis. If hard to kill weeds are allowed to spread, it will make bringing the field back in to production more challenging.

Resting Sections Of Fields

The other option to consider is resting sections of fields. There are many examples of fields across the province that have poor areas that do not yield well. Resting small sections of those fields and maintaining production in the better producing areas of those fields will save input costs without drastically reducing yields. An example is an 11-acre field (see photo below) that had been averaging 6000 lbs to the acre, with a one-acre section at the front of it that was barely yielding 500 lbs/acre. The loss of production on that one acre would have minimal impact to the over-all yield of the field, but with a significant reduction in input costs, for that acre.



In the end, it is critical that every farmer takes a close look at their fields and their financial situation and determine what course of action works best for them. For many farms, actively managing fewer, more productive acres can be one way to help bridge the gap and help reduce some of their financial risk. Looking long term the idea of resting fields or sections of fields is something that can be integrated into regular production cycles and should support a more sustainable production system and allow for struggling sections to regain productivity.

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