



## Biological Viticulture at Gladstone Vineyard

### Kyle Mason, Viticulturalist

Gladstone Vineyard has been with BioAg since the products were first released in New Zealand four years ago (2007). We were very much conventional growers with high chemical inputs focusing on the symptoms not the cause. The change came at a seminar Steven Haswell presented which challenged the conventional system and exposed its flaws. Leaving the seminar I was inspired to start looking at the whole picture.

Were all the chemicals we were applying at the time necessary? Shouldn't I be focusing on the cause not the symptoms? Isn't there a more sustainable and environmentally friendly way forward?

After talking more with Steven it quickly became obvious that the BioAg system fitted well with where we saw Gladstone Vineyard heading.

With the help of Steven and Bruce Smith (BioAg agent) my vineyard management moved from applying quick fix products to looking at the underlying causes and building a solid foundation from the soil up. The new approach required us to stand back and see the patterns around us. The initial vineyard walks with Steve and Bruce opened my eyes to a new and exciting world.

If I am honest the first couple of years in which pest, disease and weed control products were slowly dropped from the system were nerve racking. I was worried that for example when Systhane was removed from the system we would have powdery outbreaks and that the reduction in botryticides would lead to the fruit being un-harvestable. At the time I was obsessed with herbicide because having a weed free strip under the vines all year round was seen as "good vineyard management". I would do four herbicides a year; the first would be a Round-up and Amitrole mix at high rates and the other three would be Round-up and Brown Out or Hammer again at high rates! Our Home Block has had 20 years of herbicide applied to the under-vine strip and until we changed our system had major Mallow problems. I thought I needed to increase my rates to wipe it out but it just seemed to be getting worse.

I now know that Mallow thrives in unhealthy soils and by significantly reducing herbicide rates and applications and applying BioAg's Soil & Seed regularly as a soil drench Mallow has disappeared and the under-vine strip is now dominated by grasses and clovers; worm numbers are on the increase also.

In the first 2 years under the new system the vines quickly came into balance. Shoot size and growth are very even and we have not needed to shoot thin for 3 years. The vine balance means fruit thinning is hardly ever required – the vines are naturally at target yields. We have had a very consistent crop across all varieties regardless of the season for a number of years now.

Another early observation is that the vines are much better equipped to handle heat stress midsummer with a full crop load and limited or no irrigation - basal leaves are not senescing and the canopy is staying cool.

Our cover cropping along with strategic mowing and the use of the BioAg products has brought the vineyard alive both above and below ground. In the spring and summer our vineyards are full of ladybirds, hover flies, lacewings, earwigs, parasitic wasps, spiders and other insects both in the cover crop and vine canopy. We currently have no need for pesticides and are hoping that our diverse insect population keeps the pests in check. As mentioned earlier worm counts show we now have good numbers and this is increasing year by year – in 2011 the average spade count was 22.

Botrytis is no longer the major issue it used to be. Over the last 4 years we have slowly reduced the number of botryticides we apply. We originally had a 5% and 80% capfall application then a pre bunch closure application. Last season half the vineyard had one botryticide at 80% and the other half had an extra BioAg Roots & Shoots at flowering but no botryticides. Both parts of the block had no botrytis at harvest even though we had a long period of high botrytis pressure near the end of the season.

We are very happy with the positive effects we are seeing both in the vineyard and in the end product – the wines. The journey is only just beginning and I see exciting times ahead for Gladstone Vineyard.

Biological Agriculture is not one product; it is a whole system approach. The team at BioAg embrace this and don't push their products as a silver bullet. It is one of the many parts that make up our successful management system. Steven and Bruce are very passionate about biological and organic farming practices and have given me good advice along the way. They are always happy to answer any questions I have and regularly call in to the vineyard to monitor progress. I would recommend these products to anyone serious about producing premium wines sustainably.

### **A word from the winemaker, Gerhard Smith**

We have been running a specially designed BioAg program developed for our vineyard for 4 years now and I've been very pleased with the resulting fruit that we have received at the winery. As the vineyard is run with maximum quality our foremost goal, it has been very encouraging to see the consistent level of quality that we have been able to secure from these blocks. The first few vintages we had very hot and dry spring and summers and the vines coped exceptionally well with the water stress. In 2011 we had a rather wet autumn and disease pressure was very high. Our blocks that were managed with the BioAg program delivered high quality fruit with no or extremely small amounts of rot in comparison to conventionally managed blocks that really struggled in a year like this. I'm very pleased with the resulting fruit that gives us every opportunity to produce top wines in this challenging climate.



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