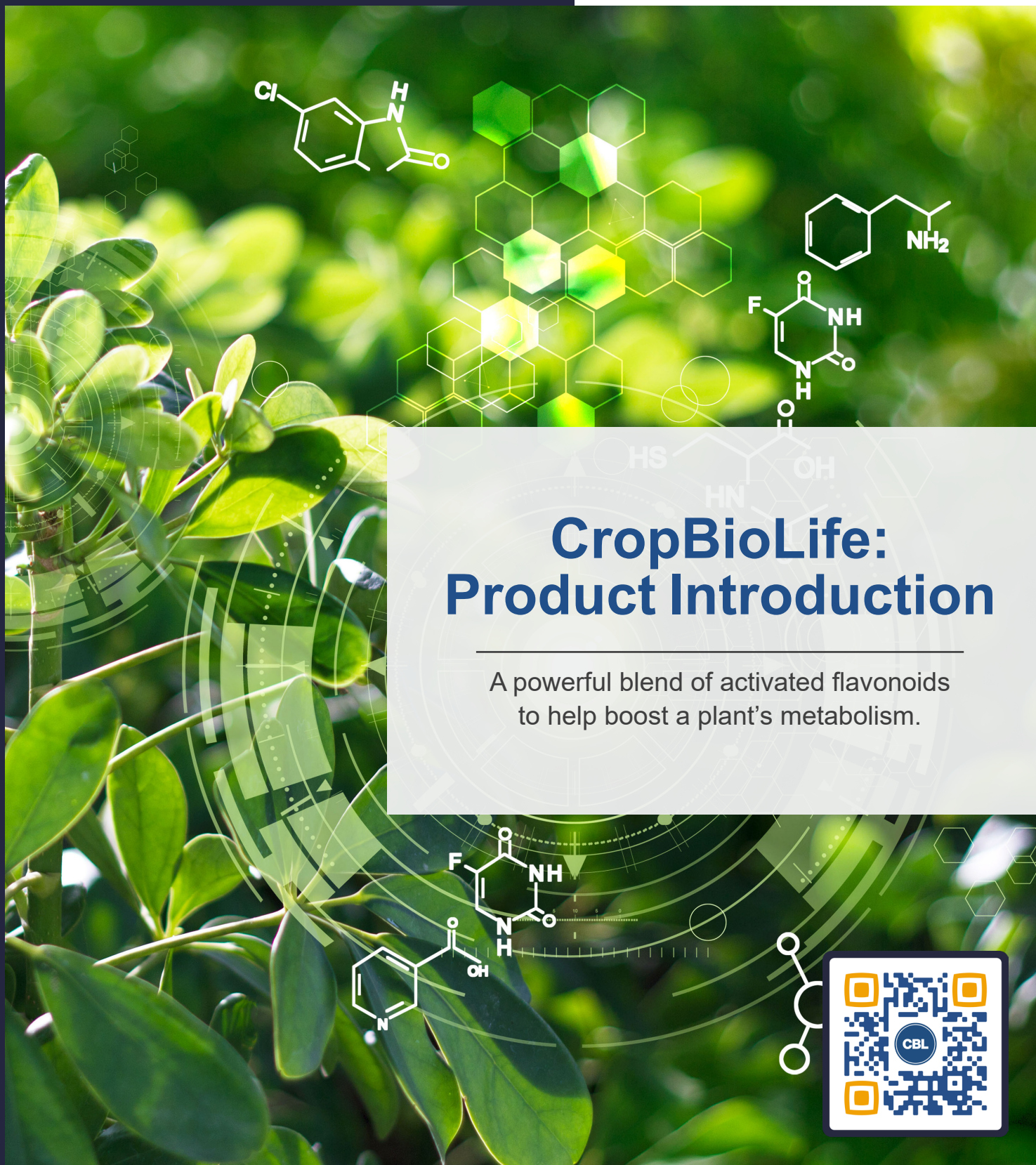




CropBioLife



CropBioLife: Product Introduction

A powerful blend of activated flavonoids
to help boost a plant's metabolism.



“In a nut shell, CropBioLife has two primary effects. It provides the plant with better access to nutrition and also provides the means to make better use of the nutrients it takes in.”

The following summary is expanded in the following pages.

1. What is CropBioLife?

CropBioLife enhances plant metabolism. Two main effects of CropBioLife are Increased photosynthesis and increased root exudation. Importantly, CropBioLife is uniquely a foliar spray that improves soil health.

2. What does it do for the farmer?

CropBioLife will help growers meet a number of harvest-time goals. Our customers get higher yields, higher quality, earlier ripening, higher brix, better color, higher overall crop value, nutrient rich foods. (for livestock and human consumption). These gains are achieved by improving the efficiency of plant internal functions responsible for nutrient up take. CropBioLife will significantly regenerate soil health which, when sustained delivers results like these. It's also cost effective. Every costing study has shown CropBioLife will achieve at least a 20% return on investment. See “user experiences” in this document for more details.

3. How is it used?

CBL integrates into the growers current spray program. It's a liquid foliar spray that can be mixed with other foliar products so no need for a separate spray. It's perfect for mixing with foliar applied nutrients as it boosts their absorption and effect. It is also extremely good at maximizing the effects of any soil applied nutrients because of its effects on helping the plant to nurture soil microbes that deliver nutrients to the roots.

.....A more detailed look

What is CropBioLife?

The main ingredient in CropBioLife is Flavonoids. Flavonoids are an integral part of plant phenolic compounds and trigger responses in secondary metabolism. Flavonoids are also an integral part of a plants communication with its environment. They are used for signaling above and below the ground. They play a role in flower colour, pollination scent and pheromone development above ground and form part of root exudates for attracting soil biology to feed the roots.

CropBioLife was developed in Australia in 2008 and is now improving farm profit in 15 countries. Plus 4 new country registrations underway currently. It is made entirely of botanical ingredients and certified as an organic input for farms.

The Flavonoids in CropBioLife act on triggering the plants basic cycle of health and nutrition. As the flavonoids and other compounds in CropBioLife move through the plant they stimulate the production of additional Secondary Metabolites which unlock a host of functions responsible for overall plant health and vitality.

Improved metabolism from CropBioLife delivers the unique ability to drive soil health. It does this by enhancing the way plants interact with soil biology.

Plants, whether broad acre crops, row crops, pasture or trees rely on soil biology to feed them nutrients. They pay for this nutrient supply service by providing food to the soil biology. In other words the plants nurture and feed the soil microbes. They do this by exudating, for the most part, carbohydrates into the soil from their roots. This is a critical symbiotic relationship for plants to thrive.

Improved metabolism can also deliver improved photosynthesis. This results in an abundance of glucose being formed in the leaves. Glucose is the most important molecule in the plant as all plant functions and growth rely on it. The more glucose available to the plant the more the plant can grow more efficiently. The carbohydrates fed to the soil biology come from the glucose formed in photosynthesis. More food means more microbes.

Once efficient, the cycle perpetuates with better nutrition provided by the soil microbes and better uptake of the nutrients providing sustained performance from the plant and higher more nutrient rich yields.

What does it do for the farmer?

By making farm inputs more efficient CropBioLife can reduce input costs. Coupled with improved yield and quality the return on investment has always been delivered.

CropBioLife has been shown to mitigate stress on plants. It delivers crop resilience in tough climate conditions and offers an accelerated way to regenerate soil health while maintaining and indeed increasing farm income. Heat, drought and frost tolerance are on offer.

Plants performing at their natural best due to the efficiencies delivered by CropBioLife have far less reliance on synthetic chemical sprays due to their own defenses being in tune. Thus, providing savings to the farmer.

The main target for CropBioLife are farms that are either running or transitioning to regenerative farm practices or those growers that have simply identified the importance of soil health. Many of our customers simply want to reduce their reliance on toxic chemicals on the farm. Pricing pressures on fertilizers and other chemical inputs also demand a change that improves the value and effectiveness of every input used.

Studies have shown CropBioLife accelerates soil organic carbon sequestration. Carbon is the life blood of soils. The relationship between the plants and soil biology is hinged on carbon in the form of carbohydrate coming from the plant and nutrients being given to the plants in exchange. The optimum model is carbon positive. Thereby the soil is improved by a build up of carbon. The key element to farm resilience.

How to use CropBioLife?

1. CropBioLife integrates seamlessly into a growers' spray program as it blends in the tank with other foliar applications such as fungicides or foliar nutrient applications.
2. CropBioLife can also be sprayed stand alone to mitigate a stress event like heat or disease pressure.
3. Use CropBioLife to correct nutrient deficiencies
4. Use CropBioLife to improve soil health.
5. CropBioLife is sprayed generally at 1 part per 500 parts water. (see full application recommendations sheet)
6. Like other foliar products it is best applied when it can remain liquid on the leaves for as long as possible.
7. Spray drift is not an issue as it cannot harm waterways, animals or people but wind can dry it out too quickly.

User Experiences

Generally, these are the experiences our customers have seen when using CropBioLife.

- Higher nutrient value in crop. Means better flavour and value as food or fodder.
- Environmental stress tolerance. (Abiotic Stress such as drought, heat, cold etc)
- Minimise insect attack by improved Brix in leaves (higher Brix is well known to prevent insect feeding.)
- Minimise fungal and bacterial disease outbreaks by improving immune system and cell strength
- More flowering, increased flower numbers, serve to attract pollinators.
- Better fruit set, less fruit drop, better fruit firmness
- Promotes healthy soils by improved soil microbe - plant interactions
- Healthy soils show Fewer bad nematodes in roots and soil, less compaction of soil, Increased free living organisms,
- Improved (nodule formation of nitrogen fixing bacteria in leguminous plants) and interact with other beneficial soil microbes. (see the soil tests)
- Improved colour and ripening.
- Improved skin quality on fruit.
- Larger more efficient root system with improved root exudation
- In Viticulture improved Taste (mouthfeel) of wines through better phenolic profile Anthocyanins, tannins,
- Pre-harvest applications plays a major role in postharvest resilience of fruits and vegetables.
- Enhanced photosynthesis – Darker leaves that don't turn away in the heat.
- Balance level of Auxin transport. (healthier plants, ripening, root growth and initiation)
- Improves Brix levels and transportation of carbohydrates/sugars
- Protects leaf cells from photo-oxidative damage and support secondary cell-wall growth, thereby enhancing the efficiency of nutrient retrieval during senescence.
- Increased shelf life, Pre-harvest applications extend shelf live
- High concentration of the actives of CropBioLife in fruits goes parallel with low incidence of pathogens; thus, fruits are usually more resistant to fungal decay. Scientific results proved above in: Tomatoes, Plums, Peaches, Grapes
- Increased calcium etc in fruit, increased nutrient value to fruit.
- Up to 90% fewer sucking insects were found where CropBioLife has been applied.
- Root size increase and improvement in rhizosphere activity (longer term root and soil effects)
- Works with soil biology to improve uptake of the nutrients and minerals to the plant (plant available)