

# YLAD Seeding Program 2010

Now is the time to begin planning for your 2010 winter crops. The best way to start, if you have not yet done so, is to get your soils tested - that way you can tailor your fertility program to match the soil's requirements.

**Contact YLAD Living Soils for a free soil test kit.**

## Compost Mineral Blends

The ideal time to apply a compost mineral blend is six 6 weeks prior to sowing. This will allow the humus and minerals to begin building soil structure and fertility, and for nutrients to become available to the plant. Don't be too concerned if there is little ground moisture when the compost is applied. Although the number of microbes in the compost may drop under the harsh conditions, many of the microbes living within the polymer will just go dormant. The critical point to make is that the humus in the compost will not change. When the rain comes the microbes and humus will kick into gear straight away.

## Down the tube

Use a custom down the tube blend to grow a healthy, vigorous root system in 2010. Strong roots are the first step towards a resilient, high yielding crop. The YLAD sowing blend includes fast and slow release phosphorus in the form of guano and humate granules to buffer the nutrients in the soil and stimulate soil biology. This ensures the plant is well fed throughout its life cycle. Including trace minerals such as Boron and Zinc in the blend may be the most cost effective way to increase plant health and nutrition where these minerals are lacking.

## Liquid Fertility

Liquid inject technology is a great way to boost soil biology around the young plant. Bio TX 500 compost tea can be applied directly into the soil at sowing to providing beneficial microbes, humic compounds, hormones and enzymes. It can also be applied as a seed dressing.

VAM inoculums can also be included for more task specific biology. VAM fungi will increase the phosphorus and zinc capturing potential of the crop, and is particularly useful in soils where phosphorus is marginal or locks up easily. VAM can be applied as a seed dressing or via liquid inject. Please note VAM is not compatible with all crops, particularly Canola.

Once the crop is up consider foliar application of BioTX 500 and Twin N to maximize yield potential.

## What are The Benefits?

The **YLAD Seeding Program** is designed to deliver full season benefits, improving soil health and crop productivity.

The picture below shows an example of wheat plants sown on the same day, the '**dreadlock**' roots on the left show extra root growth, including more branching and fine hair roots, and an active rhizosphere. The microbes in this immediate area create the environment to feed the plant essential nutrients, in the correct amounts, and protect roots against pathogens, as well as supplying **amino acids, enzymes and plant hormones**.

In return the plant releases **exudates** to feed these microbes and keep forming a rhizosphere around new roots. Abundant root growth allows the crop to increase its uptake of nitrogen, reducing the need for additional nitrogen applications.

Healthy roots actively **fix carbon in the soil** through root exudates, leading to improved structure, fertility and water holding capacity of the soil.

From this extensive root mass **VAM Fungi** extends out creating a larger surface area to absorb mineral nutrients from the soil and 'pipe water' to the growing plant.

**Overall these benefits lead to equivalent or better yields, less screenings, higher protein, and test weights.**

Conventional Fertiliser roots are 'naked' and devoid of any soil, plant and microbe interaction. These plants rely on being fed from the 'top down' and have very little resistance to drought conditions or disease. The lack of exudates been released by the roots 'starves' microbes leading to a loss of possible carbon dumping and improvement in soil structure. Nutrients in the 'total' soil pool are not accessible to the plant, meaning the plant continues to rely on more soluble fertilizer applications. It becomes an 'addict' waiting for its next hit. The cellular integrity of these plants is weakened leaving the plant more susceptible to frosting and disease.

## Down the Tube Blend at Sowing

Nutrient type	Suggested Rate	Price/ha (ex GST)
MAP	40kg/ha	TBA
Guano Granules	40kg/ha	TBA
Soluble Humates	2kg/ha	\$6.64
Boron Humates	3kg/ha	\$9.96
Zinc Sulphate Mono	4kg/ha	\$9.76
Optional Extras		
Gran Am	40kg/ha	TBA

## Liquid Fertility

Nutrient type	Suggested Rate	Price/ha (ex GST)
Bio TX Seed Dressing within 24hrs of seeding	10L/t seed	\$75.00/t
Bio TX 500 Liquid Inject within 24hrs of seeding	100L/ha	\$24.30/ha
VAM Inoculation (seed dressing)	2kg/t seed	\$228.60/t
VAM Inoculation (liquid inject)	150-200g/ha	\$17.14 - \$22.86/ha

## Foliar Application

Nutrient type	Suggested Rate	Price/ha (ex GST)
Bio TX 500 Anytime plants are setting potential (can be applied with Twin N)	100L/ha	\$24.30/ha
Twin N (alternative to synthetic nitrogen) Mid to late growth phase of plants	-	\$30.00/ha

*Rates and Prices are indicative only. For a blend tailored to your situation and full quote contact YLAD Living Soils.*



# YLAD Pasture Program 2010

Healthy pastures are the key to healthy stock, high growth rates and high birth rates. To get the most out of your livestock enterprise you need to start with the plants and the soil. Pastures need a balanced range of nutrients and the biology to access them efficiently. The key is a balanced, structured soil which can take in air and water and provide a good medium for root and microbial growth.

Our pasture blend is simple in its nature but powerful in boosting pasture performance. Based on high quality YLAD Humus Compost, with colloidal soft rock phosphate and lime, this is the answer to the nutritional, biological and physical needs of the soil.

The colloidal nature of the soft rock phosphate ensures the broad range of essential nutrients, including phosphorus, calcium, silica and traces which do not lock up and thus remain available to plants throughout the growing season. When blended with Humus Compost this form of soft rock also acts as a microbial stimulant. The humus component of this amazing pasture blend ensures all nutrients are regulated in their delivery and availability to soil and plants. Humus compost supplies good levels of zinc, copper, boron etc however if extra specific trace minerals such as molybdenum, cobalt and selenium are required these can also be evenly added to the blend to suit individual requirements.



Lime is added to provide calcium and create cation balance while raising pH. In many soils low calcium levels are responsible for poor structure resulting in hard setting, unproductive soils. Improving calcium levels allows more water to infiltrate, greater root growth, biological activity, mineral cycling and general vitality of the pasture. Such pastures respond more quickly in good times, and are more tolerant of dry conditions.

Under sustainable farming and grazing practices, the whole blend acts as a catalyst to enhance availability of all desirable soil nutrients. Over time this leads to a reduction in fertiliser and chemical inputs in the wake of improved soil, plant and animal health. This is the long term approach to healthy, productive pastures and stock.

## YLAD Pasture Compost Mineral Blend

Nutrient type	Suggested Rate	Price/ha (ex GST)
<b>Humus Compost</b>	500kg/ha	\$65.00
<b>Soft Rock Phosphate</b>	100+kg/ha	\$45.45
<b>Lime</b>	500+kg/ha	\$25.50
<b>Optional Extras</b>		
<b>Boron Humates</b>	3kg/ha	\$9.96
<b>Zinc Sulphate Mono</b>	4kg/ha	\$9.76
<b>Gran Am</b>	40kg/ha	TBA

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## The Role of the Minerals in Stock Health

Mineral	Function	Minerals supplied in Compost Mineral Blend (kg/ha)
<b>Calcium (Ca)</b>	Necessary for bone and teeth formation, regularity of heart beat, brain, nerve and muscle function.	228.8
<b>Phosphorus (P)</b>	Essential to all chemical reactions, bone and tooth structure, and brain function.	12.8
<b>Magnesium (Mg)</b>	Metabolism of calcium, sodium and potassium.	3.7
<b>Potassium (K)</b>	Regulates water content, nerve and muscle function.	6.4
<b>Chloride (Cl)</b>	Works with sodium and potassium, regulates body acidity.	0.026
<b>Sulphur (S)</b>	Protein synthesis and metabolism, fat and carbohydrate metabolism, blood clotting.	1.8
<b>Copper (Cu)</b>	Blood formation and iron absorption.	0.03
<b>Iron (Fe ++)</b>	Blood formation, body defenses, skin.	2
<b>Manganese (Mn)</b>	Anti oxidant, bone and cartilage.	0.2
<b>Zinc (Zn)</b>	Essential to most body functions, enzyme system, protein synthesis, and carbohydrate metabolism.	0.1



## Huma-Tech Stock Saver (Vet Grade)

This is a powerful stock supplement based on humic and fulvic acid chelated forms of copper, iron, manganese, magnesium, zinc, calcium, phosphorus, selenium and other micro-elements. It improves the digestive function and health of the animal, leading to better nutrition, a stronger immune system, and greater productivity.

### Rates for Cattle & Sheep:

Apply 2g for every 10kg of body weight per week.

*Also very useful for health of pigs, poultry and aquaculture.*