



## THE FIVE GIANTS

### **ONE Compaction**

Tradition tells us that by ploughing we are loosening the soil to prevent compaction and to get better water infiltration. But in fact the opposite is true!

When rain falls on unprotected soil, the sheer weight of the water and its velocity on impact actually COMPACTS it and it slumps.

If you protect the soil with mulch, this cannot happen. Also, the roots from the previous crop act as scaffolding, holding the soil up preventing compaction and loosening the soil.

When the soil structure is damaged by ploughing, the soil is more prone to compaction.

### **TWO Pests**

Rotations are key in slaying this giant! With good rotations you will break the cycle of pests and thus prevent a build up of them.

Remember that a healthy plant has a waxy protective surface to its leaves. Healthy plants actually produce a certain wavelength of light that repels pests.

There are many methods of pest control without resorting to harmful chemicals. For example stalk borer can be controlled by breaking the life cycle of the pest, by knocking the stalks over at ground level at harvest time.

Another example is termites that might be seen in your mulch, but they are actually your friends. They much prefer to eat dead material, so they eat your mulch instead of your crop, at the same time benefiting the soil.

By ploughing you destroy the natural balance of predators, which could prey on the pests and keep their proliferation in check. This is because you plough in their natural habitat in the mulch on the surface of the soil.

Ploughing does not prevent pests. Rotations do!

### **THREE Disease**

Once again a healthy plant can resist most diseases.

Rotations are very important in preventing disease build up because the diseases that attacked the previous crop will most likely not have an effect on the different crop that you plant in the next season.

### **FOUR Crop Stand**

By following the FfF principles of zero tillage, no burning and leaving a good mulch cover, it is easy to get a good crop stand. You must also adhere to the management principles of being *on time*,

doing things to a high standard, without waste and with joy. The soil that has been protected by mulch and is kept weed free, becomes softer and more friable after every successive year practicing FfF. It is therefore no problem attaining excellent crop stands.

A person with a hoe is by far more accurate than a mechanical planter when sowing your seed!

### **FIVE Weeds**

Mulch plays a large part in controlling weeds because it blocks out the sunlight preventing vigorous weed growth. Ploughing does not in fact help because some weed seeds can survive in the ground for up to 40 years!

### **Three Keys to Effective Weed Control**

- 1.** Hoe weeds when they are SMALL (less than 25mm). By doing this you are not allowing them to seed and reproduce. Hoeing then is an easy task done with *joy* as opposed to being an onerous task if you are trying to battle large weeds.
- 2.** Ensure your management is good so that you get a good and even crop stand resulting in a quick CROP CANOPY which blocks out the sunlight that is so important to weed growth.
- 3.** Most important is LATE WEED CONTROL. Hoeing is a 12 month of the year operation. By keeping your lands weed free throughout the year you are preventing moisture loss from the soil, preventing any potential weed seeds that might have been produced, and actually preparing your fields for next season! Keeping your fields weed free throughout the year will result in a depletion of the weed seed pool and weed control gets easier and easier every season.