

GROMOR APRIL 2018 NEWSLETTER

BIODEGRADABLE MULCHES

The scourge of plastic pollution has caused supermarkets to put pressure on their suppliers to reduce their use of plastic in crop production. This is not easy under intensive growing systems where plastic mulches have played a major role in uplifting production through, amongst others, better weed control, irrigation efficiency, more even soil temperature leading to a healthier soil, etc.

Answering the call, the Italians have come up with biodegradable corn- starch based mulches, with the same properties as plastic, except of course, that they are biodegradable.

Currently available in S.A, are the ones that biodegrade in 5 to 6 months and 10 to 12 months. They're black in colour and come in 1000m rolls, 1,2m wide and 15 microns thick.

A disadvantage is cost, which is approximately double that of the equivalent plastic mulch. Countering this however, is the elimination of having to uplift and dispose of the used plastic mulches, which land up polluting your farmyard, attracting rats and being a fire hazard. Degradable mulches degrade to carbon in the soil. One might argue that plastic mulches can be recycled, but recyclers won't look at them because they're dirty.

It is estimated that ±60 million tons of plastic per year is being dumped, much of it in the sea. The Philippines and Indonesia are alleged to be the main culprits. This really cannot continue indefinitely. Then of course, there is polystyrene which is an even bigger problem, with the "little balls" being virtually indestructible.

APRIL IN THE GARDEN

1. Try to keep control of weeds, only using weed killers as a last resort. On lawns there is no alternative to BROADLEAF WEEDKILLERS, containing 2,4 D and/or MCPA. They are sold under different commercial tradenames.

NB: Remember to choose a warm day for spraying – not excessively hot or wet.

2. Open beds: Apply a dressing of **GROMOR COMPOST** (1 x 30dm³ bag/5m² to 10m² or 1 x 60dm³ bag/20m²). Dig it in lightly with 150g **GROMOR ACCELERATOR ORGANIC FERTILIZER PELLETS**/m² or GROMOR 2.3.2 or 4.1.1 at 50g/m² (± 1 heaped handful/m²).
3. Plant Namaqualand Daisies and Winter-flowering bulbs. Perennials can still be lifted, divided and replanted. Prune Summer-flowering shrubs. Take Hardwood cuttings, etc.
4. Winter is our dry season which often exposes bare soil, causing soil temperature fluctuations, neither of which is good for plant or soil health. A dressing with **GROMOR PINEBARK MULCH** will counter this and reduce moisture evaporation.

SOIL FUNGI AND BACTERIA

A teaspoon of soil may contain up to 6 billion microbes from 30.000 species. The number and ratio between them changes constantly. Tilled soil favours a higher percentage of bacteria whilst untilled soil favours fungi. This has a significant influence on the soil, with bacteria preferring simpler carbon compounds as food, whilst fungi can digest the cellulose and lignin found in crop residue. Fungi are more efficient in humus formation, conditions that are found in no-till soils. Tillage damages the microscopic fungal fibres and increases soil oxygen causing a rise in bacteria numbers, releasing large quantities of carbon dioxide into the atmosphere.

Animal manure, from which GROMOR ACCELERATOR is made, because of its high carbon to nitrogen (C: N) ratio, provides the most benefit through the increase of humus, whilst green manure crops, ploughed in, cause bacterial numbers to rise through the provision of easily digestible carbon. By adding extra nitrogen to such soils, bacterial numbers are built up through utilising stored carbon for energy, leading to a loss of humus which is so essential for healthy plant growth. I remember an extension officer in North KZN complaining about their inability to reach soil organic matter of 2½% and higher, as we were advising in the Midlands and South Natal. This can be explained by the fact that in warmer climates, with sandier soils, degradation of organic matter by soil micro-organisms will cause humus levels to stabilise at lower levels.

In conclusion, plant food sources, weather conditions, tillage practices as well as soil structure and texture, all contribute to soil health.

Regards,
GROMOR (PTY) LTD

R. Hagen

PS: Don't ever kid yourself that English as spoken in England and America are one and the same language. They're not – let me give you some examples: the Americans were unable to decipher the meaning of "horse riding" with some of them being kicked badly when hanging onto the horses' tails or hanging around the neck. Hence the term HORSEBACK riding, which was better understood by Americans.

Another example is pavement. The Americans were puzzled by the number of pedestrians involved in car accidents, causing a survey to be done which established that an inordinate number of Americans did not know what pavements were for. To rectify this, the Americans changed "pavements" to "sidewalks". The result was a massive drop in pedestrian accidents! 😊