



# GATEWAY



## SPECIALLY FORMULATED FOR WET PADDOCKS

A worthwhile and cost effective method of improving soil drainage and reducing water logging and compaction creating a drier and healthier environment for your Horse/Pony

We Know How Compacted Soils In Your Paddocks Costs You Money

We Also Know How Using **GATEWAY** Can Lessen Compaction

Water must be able to move freely in the soil - both down in times of high rainfall and back via capillary action in times of drought. Water logged or drought prone soil is most likely to be suffering from compaction. A well-structured soil will hold water and oxygen in the correct amounts allowing grass to breath. This also encourages production of the vast array of beneficial micro-organisms that will go a long way towards addressing the compaction issue, encouraging worms in to aerate. Many of the best soils have critical water management problems. Applying **GATEWAY** will help excess water to move through the soil allowing in the air with the subsequent benefits of improved biological activity and humus building. **GATEWAY** is a worthwhile and cost effective method of improving soil drainage and reducing soil shear strength.

FROM THIS.....



.....TO THIS



## MANAGED WATER IS THE KEY TO GOOD GRASS PADDOCKS

**GATEWAY**  
RURAL LIQUID FERTILISERS PRODUCT



*"I used **GATEWAY** on two very different grassland areas, one a very heavy field that water logged easily, which sickened the grass. After using the **GATEWAY** grass is much thicker and greener, is loamy and no longer becoming water logged."*

Gateway customer 2017

**SPECIALY FORMULATED**  
**FOR ALL UK GRASSLANDS**  
**CAN BE USED AS PART OF**  
**THE**  
**BETTER GRASS**  
**NUTRITION PROGRAM**



# WATER IS THE KEY TO GRASS MANAGEMENT

## **GATEWAY** IS THE KEY TO WATER MANAGEMENT

**Water must be able to move through the soil easily, both down in wet periods (heavy rain and winter) but also up by capillary action in times of drought and low rain periods.**

Grass roots will not thrive in a soil that is water-logged. This is often when disease will set in and growth will be stunted and weak. Nutrient availability and uptake is dependent upon aerobic conditions and the work of beneficial micro-organisms in the soil.

**GATEWAY** can be used to improve water infiltration, by breaking down the adhesion forming compaction. It stimulates root development, thus improving aeration and allowing the roots to obtain essential nutrients, thereby encouraging and increasing biological activity.

**GATEWAY** contains a unique formulation of Soil Emollients and Natural Humic Acids with a range of biological and natural plant growth stimulants, that will improve soil life and increase Humus levels. Together, these will produce a stronger and healthier grass that is less susceptible to disease in a soil that drains more freely, allowing quicker access after watering or wet weather.

**There are two major problems in grass management:**

### **1. COMPACTION**

Compacted soils have reduced pore spaces - therefore less room for water, air and beneficial micro-organisms causing anaerobic conditions. This creates the wrong environment for beneficial soil micro-organisms. Soil pathogens then take over to attack the roots of the plant.

**GATEWAY** produces a stronger and healthier grass that is less susceptible to disease in a soil that drains more freely, allowing quicker access after wet weather.

### **2. WATER RETENTION**

Causes similar problems to the above but the soil need not be compacted for this to happen. Imbalances of Calcium to Magnesium can cause this problem.

**GATEWAY** contains a unique soil conditioning agent which allows water to move easily through the soil, improving water infiltration and increasing aeration.

***This product contains soil conditioners designed to increase water infiltration, increase depth of rooting and improve soil structure.***

# The Ionic Nature of Soils

Particularly clays and the polarised molecular structure of water results in strongly bonded water in the soil system. It is the strength of this soil-water adhesion which leads to soil compaction thus resulting in poor water infiltration, low overall water capacity, reduced soil aeration and high shear strength.



*Above: Shows poor soil structure on right*

Compacted soil reduces air space which will inhibit beneficial micro-organisms. The soil will tend to go hard when dry and hold excess water at other times. An application of **GATEWAY** will penetrate to depths of three to four feet and by doing so will improve porosity by up to 30%.

One of the most readily observed results of a treatment of **GATEWAY** is improved water infiltration rates. By reducing the adhesion which produces compaction of soil into rigid structures, particularly into a hard pan layer, the Soil Conditioner readies the soil for much deeper and faster influx of water. The increased penetration of water results in reduced run-off and standing water in previously wet areas.

Soils that have the correct balance and ratio of nutrients, together with an active humus content, are said to be fertile. Fertility is not an accident and does not in itself guarantee high yields. The highest yields will always come from crops that have been subjected to the least amount of stress and most stress comes from either too much or too little water which will result in too much or too little oxygen in the soil.

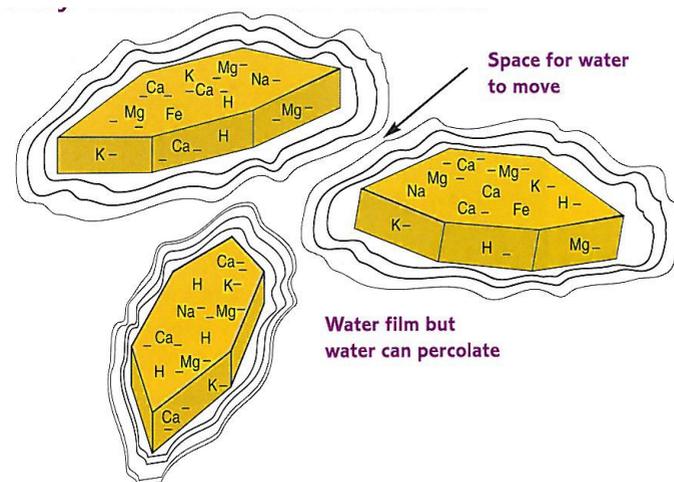
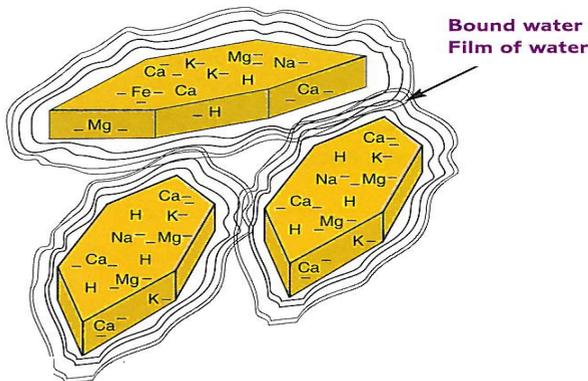
# How **GATEWAY** Works in the Soil

## Compacted Soils

## Clay Fractions/Soil Colloids

Clay colloids have varying amounts of negative charge. These negative charges attract to and hold the positive charged ions called Cations. The Cations are made up of  $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ ,  $\text{K}^+$ ,  $\text{H}^+$  plus some of the trace minerals and  $\text{Fe}^{+++}$ .

The water in the soil ( $\text{H}_2\text{O}$ ) can also be attracted to the colloid and a film can be formed around the clay particle. This film may attract and pull other colloids creating a 'bound water' which will cause the soil to become anaerobic (lacking oxygen). This bound water also reduces the water movement 'percolation' and will restrict root development.



**GATEWAY** is anionic (negatively charged) and with the polymer and glycols is able to release this trapped water. As the water moves out and oxygen goes in, the soil colloids will move apart, creating pore space. This porosity creates conditions that allow the beneficial micro-organisms to build the humus in the soil.

Once you have humus created - your soil structure will improve, plant nutrient 'availability' is increased and grass growth increases.

# **GATEWAY**

## **HELPS PREVENT MUD FEVER, SLIPPERY FOOTING AND THRUSH**

Mud fever is a "secondary condition" caused by another issue, like skin weakened by constant wetting, that creates bacterial or fungal infection. These primary causes can include bacterial infection due to wet folds in the skin, fungus, mites, minor skin injuries and can also be autoimmune related (where the horse's immune system is attacking itself). If it's autoimmune related (which is rare), redness, inflammation, sores, and itching weaken the skin and allow bacteria to invade, leading to mud fever.

- Your horse's skin normally has bacteria on the surface that does not cause problems unless the skin's surface is damaged or the immune system is compromised and can't deal with infection.
- Constant wetness (**such as standing in mud**) causes the skin to become soft and swollen, which weakens natural defences.
- Standing in wet conditions can also produce slippery footings or Thrush.

**THIS.....CAN OFTEN LEAD TO.....THIS**



**GATEWAY** helps to eliminate standing water which in turn stops it from turning to mud by addressing compaction allowing the water to drain away.

It is time to make your choice.....



If your grassland looks anything like the one above,  
you need to address the problem NOW!

Ignore it and you are putting your horse or pony at risk  
of developing **Mud Fever** which is extremely painful for them  
and expensive vets bills for you.

Use **GATEWAY** and get the water moving.

# GATEWAY

## HOW TO USE:-

Apply 2 litres per acre in 20 litres of water direct to grass or soil early autumn to improve soil conditions and reduce surface water over the winter period

In seriously compacted and water logged areas this first application should be used at 5 litres per acre in 50 litres of water

## RE-APPLICATIONS:-

For seriously compacted and water logged areas application should be repeated every 3 weeks until under control.

Then 2 litres per acre direct to grass and soil in March/April and again in early autumn.

## AVAILABLE IN 10 and 20 Litre PACK SIZES

### CONTAINS NATURALLY OCCURRING PLANT EXTRACTS WITH ADDED BIOLOGICAL STIMULANTS

Including Fulvic and Humic Acids and Natural Composted Percolates. Also contains many Vitamins and Plant Growth Stimulants with a range of proteins and carbohydrates all designed to feed the soil. **GATEWAY** also contains a clever formulation of anionic Glycol's with Block Polymers and Succinates to improve water infiltration and act as a soil emollient (softens the soil and improves biological activity).

### HARMLESS AND BIO-DEGRADABLE

### IT WILL NOT HARM WATERWAYS OR ANIMAL LIFE

For more advice or to place an order

**Telephone: 01366 384899**



Soil Fertility Services Limited, Harvest House, New Road, Crimplesham, Norfolk PE33 9FH  
Tel: (01366) 384899 Fax: (01366) 380205 E mail: [info@independentsoils.co.uk](mailto:info@independentsoils.co.uk) [www.independentsoils.co.uk](http://www.independentsoils.co.uk)

UK CENTRE FOR BIOLOGICAL GRASSLAND  
Promoting Bio-**LOGICAL FARMING** Solutions

