

## SUBSURFACE AIR BLAST SOLVES SOIL PROBLEMS



Soil compaction, a widespread problem in sports and amenity areas, is quickly, effectively and safely alleviated with a sophisticated machine operated by a Suffolk-based contractor. It shatters the compacted layer or pan with a blast of compressed air and at the same time can inject fertiliser and other therapeutic materials to help rejuvenate stressed trees, shrubs or turf in danger of dying.

Colin Pryce, who runs this new soil conditioning service, points out that in the past soil problems caused by compression by machinery and treading were virtually impossible to overcome without surface disturbance or the risk of severe root damage. His German Terralift does little, if any surface or root damage, yet each blast loosens a saucer-shaped soil volume measuring up to 13ft across and 3ft deep.

"The only other tool that can shatter the soil to depth is a subsoiler, but this cannot be used round trees or on sports fields or any other amenity area without inflicting root damage or surface lifting and tearing", he explains. "The Terralift's effect is virtually all below ground and it does minimal root damage which if anything is beneficial because it tends to stimulate root growth.

The machine's other major advantage is that is simultaneously injects slow release nutrients like BASF's Floranid Tree and Floranid NPK into the soil cracks as they are being formed. This is far quicker and more effective than surface application or root feeding through auger or crowbar holes because the fertiliser is distributed throughout the root zone. As a standard practice he also injects 1mm to 3mm polystyrene granules to help prevent subsequent closure of the fissures.

The direct feeding of stressed trees with Floranid fertilisers has significant advantages. Floranid

Tree is specially formulated to relieve stress by immediately releasing major and trace elements to roots which previously had been unable to function effectively due to the compacted soil. For roadside trees the product's high potassium and magnesium content also helps to counteract the harmful effects of salt applied to roads during frosty and snowy weather. Floranid NPK contains the balanced range of nutrients essential for good tree and plant growth and like Floranid Tree some of its nitrogen is in slow-release (nitrogen Isodur) form, thus ensuring sustained growth.

The idea of launching an amenity soil conditioning service occurred to Mr. Pryce at last year's Institute of Groundsmen's show at Windsor where he saw the machine on BASF's stand (they recommend the Terralift for soil treatment with their Floranid fertiliser range). Subsequent enquiries indicated a considerable potential demand for such a service for jobs such as rejuvenating trees in building construction areas, where soil is compacted by machinery, and conditioning soil in goalmouth areas, cricket pitches and golf courses where excessive treading has caused poor growth.

The pedestrian operated machine is powered by a Honda 7 bhp four-stroke petrol engine which drives and industrial compressor serving two compressed air cylinders. The compressed air forces air at high speed and a pressure of 105 to 300 psi through the probe and out of three holes near the probe's tip and a split second later injects the beads and the fertillier (or other materials) through the probe and thence into the cracks produced by the compressed air 'explosion'; it also drives individual wheel motors and operates a hammer that rams a hollow steel probe up to 30in. into the ground.

"The volume and pressure of air can be varied according to soil conditions and the job in hand", says Mr. Pryce. "With golf greens and tennis courts, for example, one wants to avoid rupturing the surface and so the pressure and volume would be at the lower end of the range. I don't advise use of the machine in waterlogged soil, otherwise it can work under any soil conditions".

Cost of his service ranges from about £40 for soil conditioning around a large tree to £400 for treating a football pitch or the equivalent area of land. These prices include polystyrene bead soil improver mix injection but not fertiliser or other materials such as nematicides and fungicides.

In conjunction with BASF the Terralift will be demonstrated at the Sports and Leisure Exhibition at Windsor on September 15th to 17th.

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**Editor's Note:**

The 'Terralift' was seen in action on the tree lined streets of Munich last year, injecting BASF Floranid Tree deep into the roots.

The Munich authority have calculated it is cheaper to 'dose' a sick tree, rather than remove and replace it.

## GOLF - Chinese Style

There is a new exotic oriental venue for competitive amateur golfers, who can play to a handicap of 12 or less.

The second mens open amateur championship for the people's Republic of China will be played at the Chung Shan Hot Spring Golf Club over four days commencing on 5th November.

Six days accommodation, including breakfast, two days of practice, entry fee, jet foil from Hong Kong, a buffet dinner on the first day and a Chinese Banquet on 7th November are on offer for a mere \$300 US dollars. (£140.00).

Unfortunately this price does not include the air fare from Heathrow to Hong Kong.

If any of our readers fancy making the trip the Editor has the entry form and would consider offers of sponsorship to join competitors and report the proceedings. He is also on good terms with the Course Manager.

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