



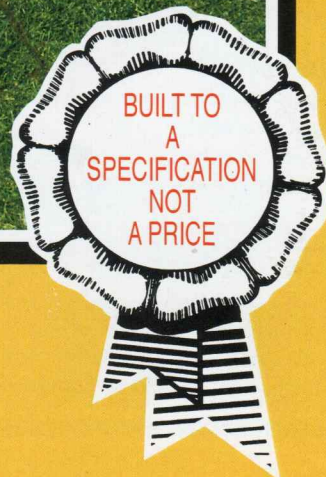
JAMES

SOIL AERATOR

NEW ZEALAND'S PREMIER SOIL RENOVATOR/CONDITIONER



TOP PERFORMANCE – TOP FINISH



PAYING FOR QUALITY IS NEVER EXPENSIVE

JAMES

Soil Aerator



5 LEG GRASSLAND AERATOR



Above Left

Shearbolt protected legs.

Greasable skeith centres.

Adjustable skeith height to accommodate varying conditions. Note the 15 cm soil heave in leg area which produces maximum fracturing of top 25 cm soil layer. Robust construction.

Above Right

Large skeith cuts down to 20 cm therefore decreasing friction on legs as soil flows through.

Cavity at rear of blade shows lifting action of the foot assembly. Note fracturing of the soil as it flows with a waving action through leg assemblies.

Lower Right

Profile showing horizontal fracture line at approximately 23 cm depth.

Vertical fractures in cut layer enables oxygen to penetrate this area permitting the breakdown of organic matter and increased root growth.

The channels at the sides indicate path of tine points which penetrate a further 8 cm to fracture plough pan allowing water to drain into subsoil.



Pasture Aeration

The James Soil Aerator was manufactured to overcome compaction of soil structures which result in excess moisture on pasture surfaces, shallow root systems and restricted plant growth.

The three point linkage mounted implement aerates the top 23 cm of the soil, draining the pasture surface, and giving increased earth worm population and activity. This also increases root growth which in turn produces pasture growth, at the same time retaining the fertility on the surface. Increased depth of root structure results in greater ability to produce growth in dry weather conditions. The unique waving action as the turf flows through the blade assemblies produces maximum fracturing of the top 23 cm layer and releases minerals which have been unavailable because of lack of oxygen.

M.A.F. trials conducted on pasture in Southland produced an average dry matter increase of 21.7% over a 15 month period.



Above

Sample on left represents untreated pasture.

Sample on right shows vigorous root structure after aeration. An increase of 25 mm per month has been achieved.

At this stage earthworms are active down to root depth.

Cropping Aeration

Aeration of cropping ground fractures the soil to a depth of approximately 30cm if required. This gives increased moisture and oxygen penetration, at the same time leaving the fine topsoil on the surface and the newly fractured coarse material in the subsoil. Water logging of the soil structure is reduced dramatically by the introduction of aeration.

Cultivation hours for establishing the crop have been cut by up to 40% in parts of the South Island, while a trial conducted at Lincoln College cropping farm on direct drilled Rongatea wheat produced a 40% increase in yield.

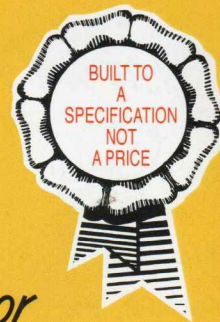


5 LEG CROPPING AERATOR



JAMES

ENGINEERING LIMITED



Premier Auto Reset Aerator

Advantages & Features

- Increased main frame strength
- Increased hourly work rate
- Eliminates shear bolt problems
- Timber & Rock problems greatly reduced
- Hydraulic Auto reset cushions shock loading on aerator & tractor HYD.
- Adjustable breakout pressure



Lump Skid Option

Bolt on lump skids are designed to eliminate creating holes in extreme soil conditions. Lump skids are an option for all James Aerators.



James Power-Harrow Pre-Ripper

The James Pre-Ripper used in conjunction with a Power-Harrow can reduce fuel consumption by up to 20% while reducing wear and stress on the Power-Harrow. Gearboxes run cooler and tines last much longer. Pan layers are eliminated and drainage improved. Crop yields are increased.



James 3PL Mole Plough

The James Heavy Duty Moleplough is designed to transfer water to field tiles or open ditches where a good clay subsoil is found. Long heavy-duty beams provide excellent planing action on undulating ground surfaces. Pivoting headstock permits easy following of contours and reduces stress on tractor hydraulic arms.

Shearbolt protected 16mm high tensile blade.

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Your Local Agent