

# MULTI FARMING SYSTEMS

*Setting the standard for long term, cost effective, viable farming systems*

## Rock and Root Rake (Pin Wheel Stickrake)

**Designed to clear new land and rake sticks and rocks from cultivation.**

### Rake General Features

- Widen/narrow on the run to adjust for lighter/heavier loads.
- Centre towing prevents the Rake from crabbing sideways with heavy loads.
- Rear wheels are steered hydraulically, eliminating the need for troublesome tie rods which sticks can get caught in.
- Pin & ground wheel bearings are identical for ease of carrying spare parts.
- Jump arms are fitted to individual pin wheels to prevent damage from oversized stumps and rocks.
- A flame thrower can be fitted to the rear of the machine for a one pass rake and burn operation for sticks and roots.

**Trash Flow** – Rake wheel pins are set around 75mm (3") apart against the rim of the wheel center, and are not profiled or tapered to trap trash. This allows loose soil to flow through easily, while trash is fed from wheel to wheel, creating a windrow at the end.

**Undulation, Potholes and Contours** – Frames are hinged every fifth pin wheel, enabling the Rake to hug uneven ground just as easily as level ground.

▼ **Pin Wheels** – large 1,270mm (50") diameter centers with 203mm (8") pins of 38mm (1 ½") square mild steel welded to them. Overall diameter of each wheel is 1,676mm (66").



**Tyres** – Jumbo aircraft tyres are used to avoid punctures on dirty ground.

### Standard Models

Pin Wheels	Overall Width	Wheels
6 Wheel	3.7 – 4m (12 – 13ft)	3
8 Wheel	5 - 5.5m (16 – 18ft)	3
13 Wheel	8 - 8.8m (26 – 29ft)	5
18 Wheel	11.5 - 13m (38 – 43ft)	7
23 Wheel	14 – 16.2m (46 - 53ft)	9

Design variations and larger models are available on request. Start small and extend.



◀ 8 Pin Wheel Rake in Alabama, USA.

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## Rake Specific Features

- 18 wheel weighs around 12-3 tonnes.
- A 150hp tractor can pull it at 5 miles/hr (8km/hr) on average to hard ground.
- For blade ploughed or cultivated ground, a tractor around 400hp would be required.

## Raking Method

Open the Rake out to the desired width depending on how heavy the stick/rock load is. Vary the width as required on the run. Drive in a circle left around the field and create a windrow. Continually move that windrow into the dirty ground, collecting more matter until the Rake cannot easily move its load without jumping too much. Remove by:

- Sticks. Burn the windrow on the run or light up after stick raking is completed.
- Rocks. Continually pick up large piles of rocks with a bucket on the tractor and remove with a dump truck. Remaining rocks can be raked into windrows and removed continually. Alternatively, remove entire windrows with a rock picker once they get too heavy to move again.

Multi Farming Systems are not in the business of spare part sales, and make cost effective, durable machines with minimal maintenance.

**Designed by a farmer for farmers.**



▲ Rakes are much bigger than they seem.



◀ David Trevilyan, the designer, with the Rake pull in the working position.

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▲ Large Rakes are now hinged every fifth pin wheel to hug contour banks and uneven ground. Jumbo aircraft tyres are fitted to avoid punctures. NB Special 19 wheel pictured, new 18 wheel models have three U frame arches.