

The Wheel Track Roller / Combi



“A practical solution for a diverse range of crops, maximising water retention by reducing surface water run-off for farmers who use tramlines”.

Soil and Water Management in Agriculture

As per “The Current Status of Soil and Water Management in England”, published by the Royal Agricultural Society of England, “Agricultural production in general and soil and water management in particular, face a considerable challenge in meeting demands of (1) increasing food production and security at both national and international level, (2) the demand for alternative fuels, (3) climate change, (4) soil protection, (5) flood and pollution control and (6) the availability of water resources for crop and animal production combined with the diminishing supply of labour”.

Soil is being eroded from the land by rainfall, often ending up as sediment in rivers to the detriment of their flow, increasing the threat of flooding (sediment being the primary contributor to the increase in occurrences of flooding from our waterways), increasing the likelihood of fertilisers and other potential pollutants being carried to other landowners and ultimately also into the water course.

Facts:

- 72% of the land in England is under agricultural management
- 99% of the world's food comes from the soil
- more than 10m hectares of crop land is lost each year as rain and wind erode topsoil
- 300m ha, enough to feed Europe and 10 times the size of the UK, has been so severely degraded it cannot produce food
- in many places, soil is being lost far faster than it can be naturally regenerated
- attempts to irrigate arid lands have produced soils so salty that nothing will grow
- farming has produced an 'agricultural scar' on the planet that affects one third of productive soils.

Solutions are available in the market for soil run-off issues on soft, **un-compacted** soils.

DEFRA funded R&D shows that tramline wheelings, **compacting** the soil, can **account for 80% of run-off**.

Now a solution is available for medium / hard compacted soil.

- A solution that can indent the compacted soil and hence provide a reservoir to retain the water to prevent run-off.
- A solution that can self-clean in order to facilitate continuous operation, even in demanding soil conditions.
- A solution which furthermore directs the water retained into the soil which is going to support the crop, in order that the water can both soak away and also be of benefit to the crop in particular.



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Benefits

- Water is directed under the roots of the adjoining crop for potential uptake.
- No disturbance of buried stones when stone and clod windrowing is practised.
- No hindrance to future tramline traffic.
- Self-cleaning moulded plastic Rollers enable the creation of evenly spaced indents / reservoirs.
- Reduction in pollution potential / liabilities.
- Reduction in soil erosion.

Features

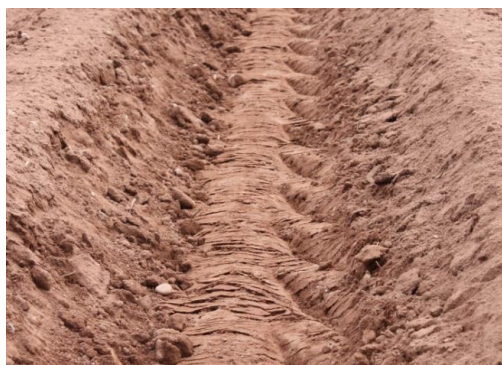
- Machine adaptable for operation in combinable crops (cereals) AND ridge / bed grown crops (potatoes / vegetables) including horticultural crops.
- A uniquely shaped self-cleaning, high-slip, low soil adherence plastic Roller forms angled elongated reservoirs.
- The oblique angled Roller self cleans by the *slip and scour* movement.
- A 100% longer indent than tooth length creates fissures in the soil surface to further aid infiltration.
- The concave shaped centre section of the Wheel Track Roller gives a necessary, compacted convex centre of the tramline pathway that ensures water flows into reservoirs to maintain a dry pathway that facilitates traffic.
- Angled tines divert the water through the soil and the adjoining roots.

The results

Significant and substantial reductions of surface water run-off whilst maintaining trafficability.

How it works

- Available for use on typical toolbars or with our tailor-made solutions, the Wheel Track Roller works in conjunction with angled tines to provide a unique solution for a wide range of crops.
- Tines run to the side of the compaction caused by the tractor, imparting minimal surface disturbance but generating a channel through which the surface water can escape into the adjoining crops.
- The unique self-cleaning, high-slip, low soil adherence plastic Wheel Track Roller forms angled elongated reservoirs holding the surface water and at the same time creates fissures which facilitate the filtration of the water into the soil which remains soft around the channels generated by the tines!



Further Information

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