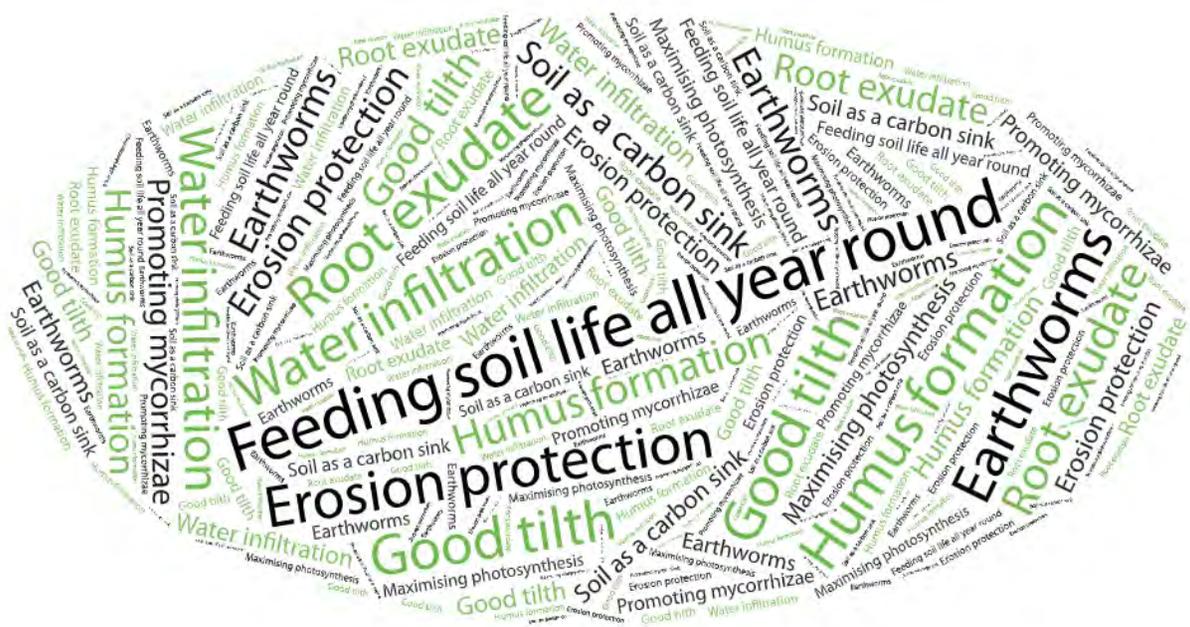




The MulchTec-RotoSeeder





## The MulchTec-RotoSeeder

Implement for permanent root penetration and ground covering –  
the key to soil fertility in intensive cultivation

## MULCH-TILL SEEDING

# The combination seeder for regenerative mulch-tillage systems

The MulchTec-RotoSeeder enables cereals and various cover crops to be sown below mulch layers and fresh harvest residues. The implement cuts into the soil just below the surface with the help of precise height guidance functionality to reliably kill off existing crops and weeds. To ensure optimum germination, the seed is deposited onto the seed layer, where it makes contact with the capillary groundwater. The seed is purposefully not mixed in with the fresh organic matter from the tillage stream to avoid germination being inhibited by decomposition processes.

### Using residual mulch and crop residues as ground cover

Once the main crop has been harvested, the crop residues are shredded using a flail mulcher. Combined with the existing residual mulch from a previous cover crop, it produces a substantial mulch layer. This should be used to its advantage as ground cover for the winter, thus eliminating the need to incorporate the mulch material into the soil, which would disturb organic fermentation and soil life.



### Sowing a cover crop beneath the residual mulch

The MulchTec-RotoSeeder penetrates the soil and mulch layer at a shallow depth using precise height guidance. The material is lifted up by the cutter head, which runs against the direction of travel, exposing the seed layer. The seed is then broadcast and deposited by a coulter bar, before being covered up again by the tillage stream (mixture of soil and mulch).





### **Seed placed in contact with capillary water**

A major advantage of this sowing method is the immediate and constant supply of moisture to the seed from the capillary action of the soil layer below. The water is effectively prevented from evaporating by the overlying soil and mulch mixture. Water can also quickly infiltrate from above. This prevents mud silting and even erosion over the winter months.



### **Feeding soil life over the winter months**

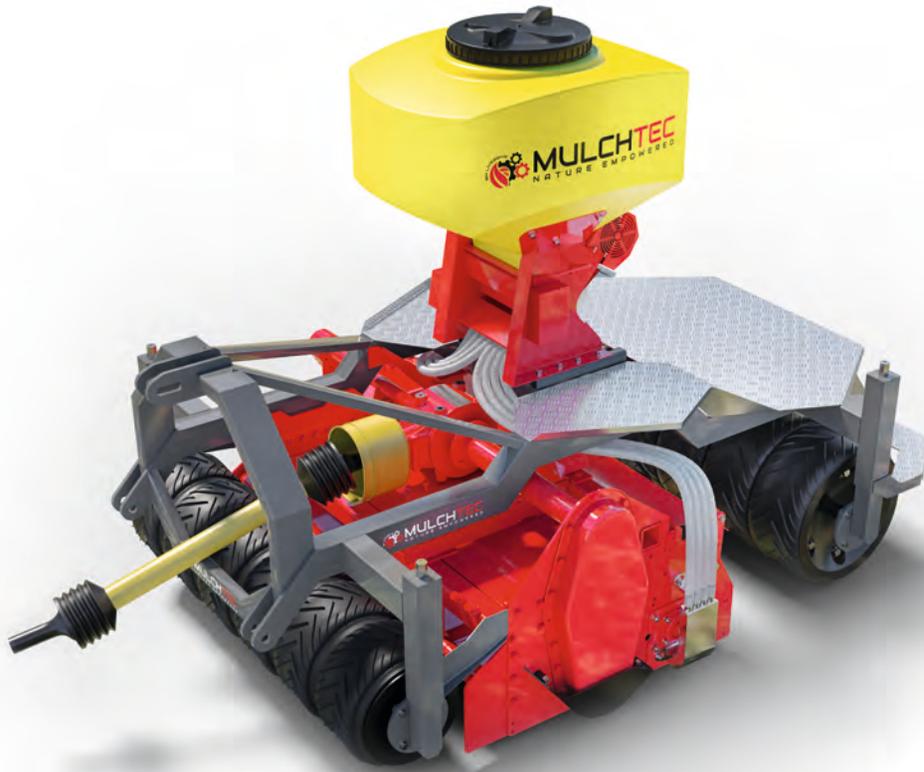
If the soil has been covered by organic mulch during the main vegetation period, it develops a considerable earthworm population. The worms like to be fed with mulch continuously throughout autumn and spring. A cover crop can be established in just one pass after harvest using the RotoSeeder, enabling farmers to capitalise on valuable time for photosynthesis. Ground cover and root exudate have the greatest impact on humus formation.



## TILLAGE AND SOWING EQUIPMENT

# A clever combination for soil formation

The core component of the MulchTec-RotoSeeder is a stone burier with overlapping angle knives that cuts into the soil at full width without causing surface smearing. The cutter is combined with a pneumatic seeder that broadcasts the seed onto the seed layer via a coulter bar. The implement is equipped with precision height guidance functionality to ensure a precise, uniform seed depth.



### Robust tillage equipment

The stone burier used is a G35 from FORIGO in working widths of 130-250 cm. Worth highlighting are the counter-mounted overlapping angle knives, which ensure the soil is penetrated at full width, at an ideal seed depth of 2-5 cm. The working direction of the cutter shaft ensures that the seed layer is already exposed when the knives penetrate the soil. This avoids any precompaction of the soil. The angle between the knives and the soil is 40° during penetration and 15° during lifting. This ensures that the knives do not smear the soil or create a tillage pan as a result. At 540 rpm on the PTO, the rotational speed of the rotor is 240 rpm. Travelling speeds of 4 to 6 km/h produce optimum results.



### Height guidance functionality

The MulchTec-RotoSeeder is equipped with height-adjustable front and rear rollers as well as a slotted hole on the upper link to ensure the preset seed depth is maintained regardless of any unevenness in the soil. Self-cleaning 'Farmflex' rollers are used to ensure optimum results, even in wet conditions.

### Coulter bar

The coulter bar is situated in the area directly behind the cutter shaft, out of the way of the main material flow. It is equipped with a special distribution system featuring eight outlets, each 16-30 cm in width (depending on the working width of the machine). The design facilitates a uniform broadcast sowing pattern. A rotating roller above the coulter bar prevents longer crop residues and so on from accumulating above the coulter bar.

### Pneumatic seeder

A pneumatic seeder from APV with a capacity of 300 to 500 litres is used for seed sowing. It can be filled from the rear via a secure set of steps. The seeder is equipped with a seeding shaft for either fine or coarse-grained seed. The seed is metered precisely via the 5.2 control module based on the speed of travel by means of a hydraulic fan, and fed laterally into the coulter bar via the air stream. The engineers even thought of details such as a calibration slide with bag and scale. A fill level sensor, calibration button and excavation sensor are available on request.



## Technical specifications and equipment versions

Model	Working width	Exterior width	Number knife/knives	Seeder	Weight	Power rating [hp]
MTS - 130	130	152	36	APV PS 300 M1	1220	50
MTS - 150	150	172	42	APV PS 300 M1	1300	60
MTS - 170	170	192	48	APV PS 300 M1	1400	65
MTS - 185	185	207	54	APV PS 300 M1	1480	70
MTS - 200	200	222	54	APV PS 500 M2	1640	80
MTS - 230	230	252	66	APV PS 500 M2	1680	90



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