ECO TILLER 600

SOIL BELT TECHNOLOGY

ECONOMIC AND ENVIRONMENTAL BENEFITS

Soil technology is one of the basic preconditions for ensuring the economic and environmental function of agricultural production. Strip Till is, from the point of view, one of the most advanced solutions of agro-technical processes in relation to soil and yield potential. **This technology can be characterized as a combination of soil degradation constraints and the benefits of soil warming - the advantages of classical soil cultivation in the soil protection technology system to create optimal conditions for seed development.**

Soil cultivation and its effect are mainly applied to crops whose crops are based on a line spacing of 45 cm or more from the point of view of classical field production. However, there may also be cases of narrower line spacing, such as in vegetable growing techniques or crops. Agrotechnically in terms of potential crop yields for the habitat and climatic conditions, this technology is fully comparable to conventional soil treatment.

P & L, spol. with the support of the Ministry of Agriculture and Research, the NAZV QJ1510179 has developed a machine for belt treatment. Partner companies: VÚMOP, v.v.i. Prague-Zbraslav, VÚRV, v.v.i. Prague-Ruzyně workplace Jevíčko and ZD Krásná Hora nad Vltavou .s.

Výzkumný ústav meliorací a ochrany půdy, v.v.i.

ZD Krásná Hora nad Vltavou a.s.

Economic benefit of Eco Tiller

The economic benefit of Strip Till technology has to be seen primarily in the saving of „tensile force“, ie in lower energy demands per unit of standing, at the same depth of soil treatment as for all-surface operations. Depending on the settings of the Eco Tiller work units, the most commonly the width of the treated belt is 40% of the total machine stroke.

Limitation of water erosion on land

Significant benefit of Strip Till technology is in soil protection against water erosion in broad-line crops. Higher penetration capacity of the soil in this case is due not only to better soil structure in the treated bands but also to the keeping of plant residues in the intersections. Eco Tiller invites you to a broader use of intercropping technology based quickly after the harvest and subsequent autumn or spring belt processing by Eco Tiller for corn, diabetes and other crops. This process reliably and naturally delivers organic matter to the soil, the content of which in the soil has been reduced in the long run due to changes in crop rotation.

Application of fertilizers or sowing

From the point of view of plant nutrition, it is also useful to apply mineral fertilizers to soil, both in solid and granular form, as well as liquid, in conjunction with soil spreading using Eco Tiller. In this case, P & L offers the user a type of Ferti Tiller machine that manages the fertilizer application at depths of the soil profile chosen by the user. In case the user needs digestate or slurry, P & L has prepared a special machine called Muck Tiller, which is specifically designed for this activity. This type of machine is aggregated directly behind the application tank or self-dosing applicator. If a user of the belt-strip technology wants to base a rake at the same time, then the manufacturer, P & L, is able to deliver a Seed Tiller that meets this technology.

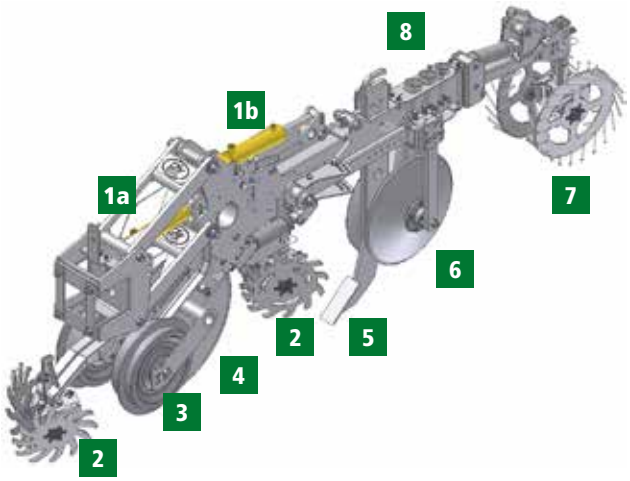
Management of soil water

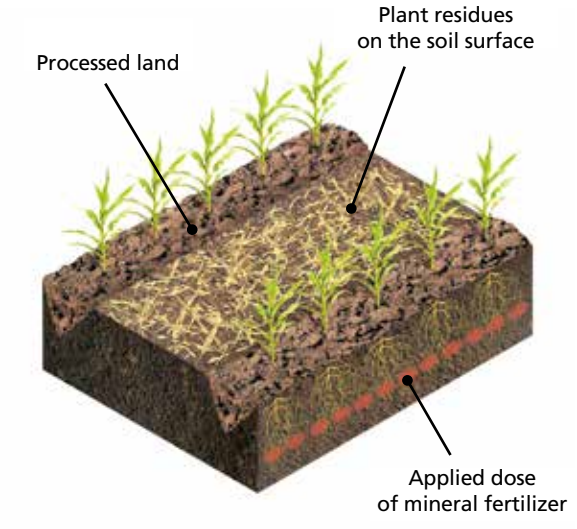
Soil is important to save. Global climate change has a major impact on the growing lack of water, which is also threatening Czech agriculture. Soil-belt technology, if properly integrated into the entire system of basic agro-technology, has a strong influence on the soil-water survey. This is due to the lower evaporation of water from the untreated belts (evaporation) depending on the amount of plant residue on the land. Plant debris naturally prevents the growth of weeds, or their growth substantially reduces and inhibits. This effect in relation to newly sown crops can be seen as a competitive advantage for the growth of crops in processed soil strips. This advantage is based on the fact that the treated soil has a higher temperature, a generally better air and water regime, which affects the biological activity of the treated strip of land compared to the untreated land area.

The individual parts of the Eco Tiller can be adjusted so that the processed soil strip is level and allows its structure to be created in a short period of time.

If the belt cultivation is done in autumn for spring crops, the Eco Tiller can be adjusted so that the soil structure is cheeky and the profile of the processed strip is in the shape of a crown. This creates optimal conditions for spring sowing.

Work unit in all conditions





The work unit is designed for all soil conditions and for different technological processes

1. Hydraulic piston rod 1a with pressure function - Parallelogram and change from transport to working position Hydraulic piston rod 1b with overload protective working function - contact with stones,
2. Two pairs of fingerworms for removing plant residues from the treated strip of soil. Under conditions with a small amount of plant residue alternatively without the first pair of cleaning wheels.
3. Two support wheels with cutting ring - suitable for TTP. Alternatively smooth PNEU FLEX support wheels.
4. Center cage with a diameter of 570x6 mm.
5. Big slant, easy to adjust soil depth up to 30 cm. Different types of removable work tools can be used.
6. Concave shaping discs with a diameter of 430 mm to modulate the final profile of the treated strip of soil.

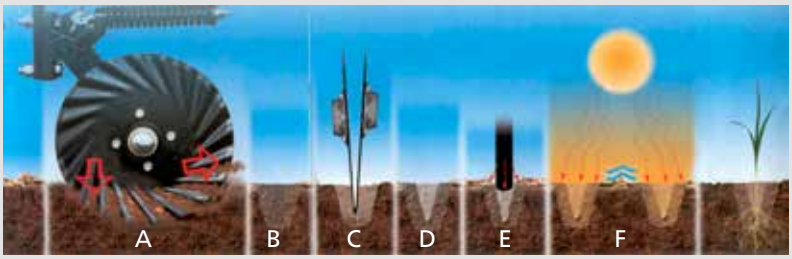
   Alternatively, smooth, cut, or curled discs - Koltry can be used.
7. The spinning wheel „V" creates a soil structure. Alternatively, the PNEU FLEX and other versions.
8. Three lines for application of various types of mineral fertilizers, both in liquid and granular form, digestate application, slurry, all at the same time at different depths in the soil.

CULTIVATOR ECO TILLER

High demands on the seed drill

Soil belt technology is comparable to conventional soil technology from the perspective of agro-technology and yield. However, the fundamental difference from conventional technology is in the requirements of the sowing system used in the system. Since the sludge technology is practically not practicable, it is the „responsibility" for the quality of seed deposition in the soil only on the seeder. It must not only be sufficiently robust but must be equipped to handle, in addition to good pristine preparation, seed or mineral fertilizers at the correct agrotechnical depth.

The Eco Tiller comes in 6 or 8-line shots with a 45, 70, 75 cm pitch.



Recommended sowing technology for Strip Till technology

Koltr creates a seedbed for seed, removes any plant residues from seed placement (A).

Koltry have the ability to replace the work of cultivators, cultivators and compactors. Pressure on one collar in the range 180-250 kg gives the user the possibility of sowing into hard-to-treat soil without restriction.

The soil is processed only in seed strips and not processed (B).

In a groove prepared by a collar, the double disc latch seals the seed (C).

The restoration of the soil capillary is provided by a clamping wheel, which simultaneously serves to set the exact depth of the sowing (E). The strip of processed soil (F) is heated much faster and this promotes rapid uplift.

SPECIFICATIONS	MODEL	
	ECO TILLER 600	ECO TILLER 450
Length	2700 mm	2700 mm
Working width	5650 mm	4350 mm
Shipping width	3000 mm	3000 mm
Shipping height	2540 mm	2540 mm
Number of rows	8–12	6–10
Operating weight	3050 kg	2650 kg
Working speed	8–12 km/h	8–12 km/h
Required aggregation	25–35 HP/ow	25–35 HP/ow
Working depth	150–330 mm	150–330 mm

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