

BEDNAR
FARM MACHINERY



TERRALAND DO

Excellent Soil Cultivation in a Single Pass

JOY
OF FARMING



Why TERRALAND DO?

TERRALAND DO is a robust combined (disc-chisel) machine that is able to cut and process a large quantity of crop residue in a single pass. It mixes the residue with soil and loosens (undercuts) soil up to a depth of 45cm. The front of the machine is equipped with large, independently mounted discs (660×6mm) that are under pressure from non-stop spring protection. The shares are mounted in four rows with spacing of 37.5cm. This technical solution allows for perfect permeability of the machine thanks to the four-row layout of shares and for the possibility to create ridges for the

Ridge-Till method. The machine can be equipped with an ALFA DRILL for low-cost crop establishment.

Thanks to the well-tested construction of the TERRALAND DO under the hardest conditions of a large quantity of post-harvest residue and heavy soils, the TERRALAND DO combined machine is a machine that will cut crop residue, mix them with soil, incorporate residue evenly into soil profiles, aerate soil and start the water regime required for the following crop. All in a single pass.

BENEFITS THAT MEAN SAVINGS:

- Quality incorporation of post-harvest residue in a single pass.
- Combination of operations – disc operation, loosening, digging, reverse soil consolidation.
- Overall reduction in the costs of workers and operation.
- Possibility to work even with extreme amounts of post-harvest residues thanks to the perfect permeability of material through the machine.
- Possibility to work in very moist conditions thanks to the construction of the machine with an integrated axle.



“The quantity of post-harvest residue that has to be incorporated back into soil in a good and uniform manner increases with the growing crops. Therefore, we developed TERRALAND DO. A combined machine that is able to incorporate a large quantity of residue in a single pass, until the field is all clear, even after a corn crop of 16 t/ha!”

Jan Bednář



Why TERRALAND DO?

TECHNICAL ADVANTAGES

- Independently mounted large discs, 660×6mm in two rows.
- Non-stop spring protection of each disc creates a large pressure (270kg) on crop residue.
- 4 rows of working shares with hydraulic protection allowing work to 45cm. Option to disengage the shares.
- Shares with active mixing (Active-Mix) or passive undercut of the soil profile by shares (Zero-Mix).
- Integrated axle facilitating work without rear packers.
- Ridge-Till kit – possibility of ridging for work with moisture for winter and protection against erosion.

AGRONOMIC ADVANTAGES

- Excellent incorporation of a large quantity of crop residue after harvest.
- Deeper cultivation than is provided by standard cultivators designed for max. depth of 35cm.
- More air in soil necessary to create a better soil climate.
- Functional water regime = increased ability of soil to absorb a large amount of rain water. Better access of underground moisture to roots.
- Bottom layers of soil are not carried out to higher soil profiles, mixing takes place in the top part of the soil layer.
- Application of fertilisers and easy crop establishment (Greening) thanks to the option to connect with FERTI-BOX and ALFA DRILL.



WORK AFTER WHEAT

- TERRALAND DO 6500
- Crop: 10.2 t/ha
- Number of passes: 1
- Working speed: 10 km/h
- Fuel consumption: 12 L/ha



WORK AFTER CORN

- TERRALAND DO 4000
- Crop: 16 t/ha
- Number of passes: 1
- Working speed: 8 km/h
- Fuel consumption: 15 L/ha



Post-harvest Residue Management

BEDNAR MULCHER – A PART OF PRECISION TECHNOLOGY

By mulching the corn stubble field before using TERRALAND DO, you can achieve even better and more uniform decomposition of residue and transformation into the organic part of soil. Mulching shortens the length of stalks, which reduces the risk of hibernation of the European corn borer.



Unmulched stubble field – stalks longer than 35cm. High likelihood of spreading of the European corn borer.



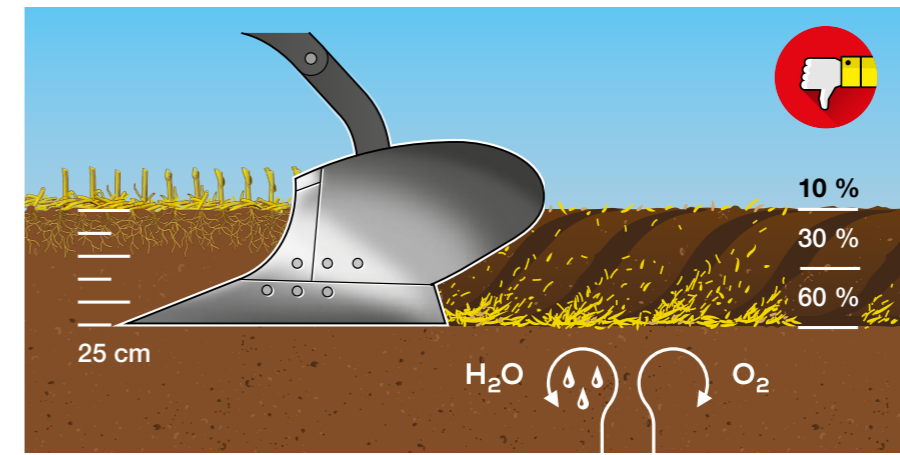
Mulched stubble field – stalks no longer than 5cm at the most. Very low likelihood of spreading of the European corn borer.



Result of the work of TERRALAND DO on unmulched stubble field after the harvest of corn.



Result of the work of a TERRALAND DO on a mulched stubble field after the harvest of corn. Perfect incorporation.

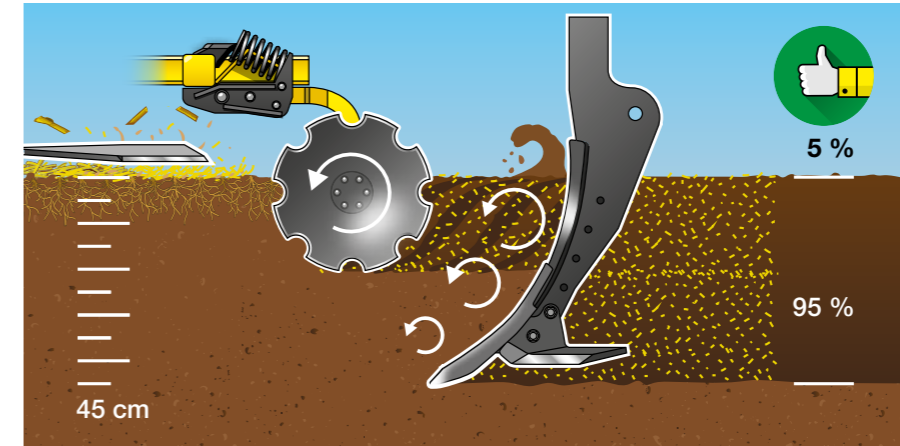


DISTRIBUTION OF CROP RESIDUE IN THE SOIL HORIZON

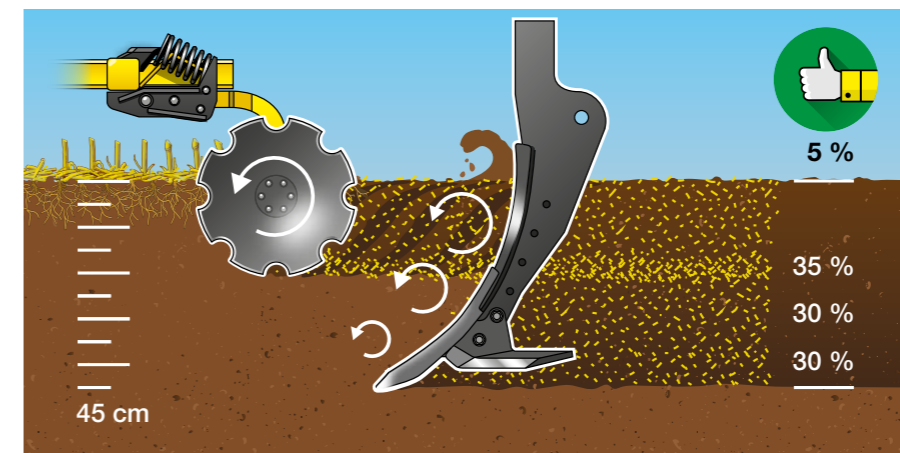
The size and distribution of post-harvest residue after a traditional plough in the soil horizon. Formation of a crop residue cushion. Blocked water regime and air in soil.



The size and distribution of post-harvest residue after share cultivator with active mixing. Large parts of post-harvest residue – high risk of hibernation of the European corn borer, extended period of rotting.



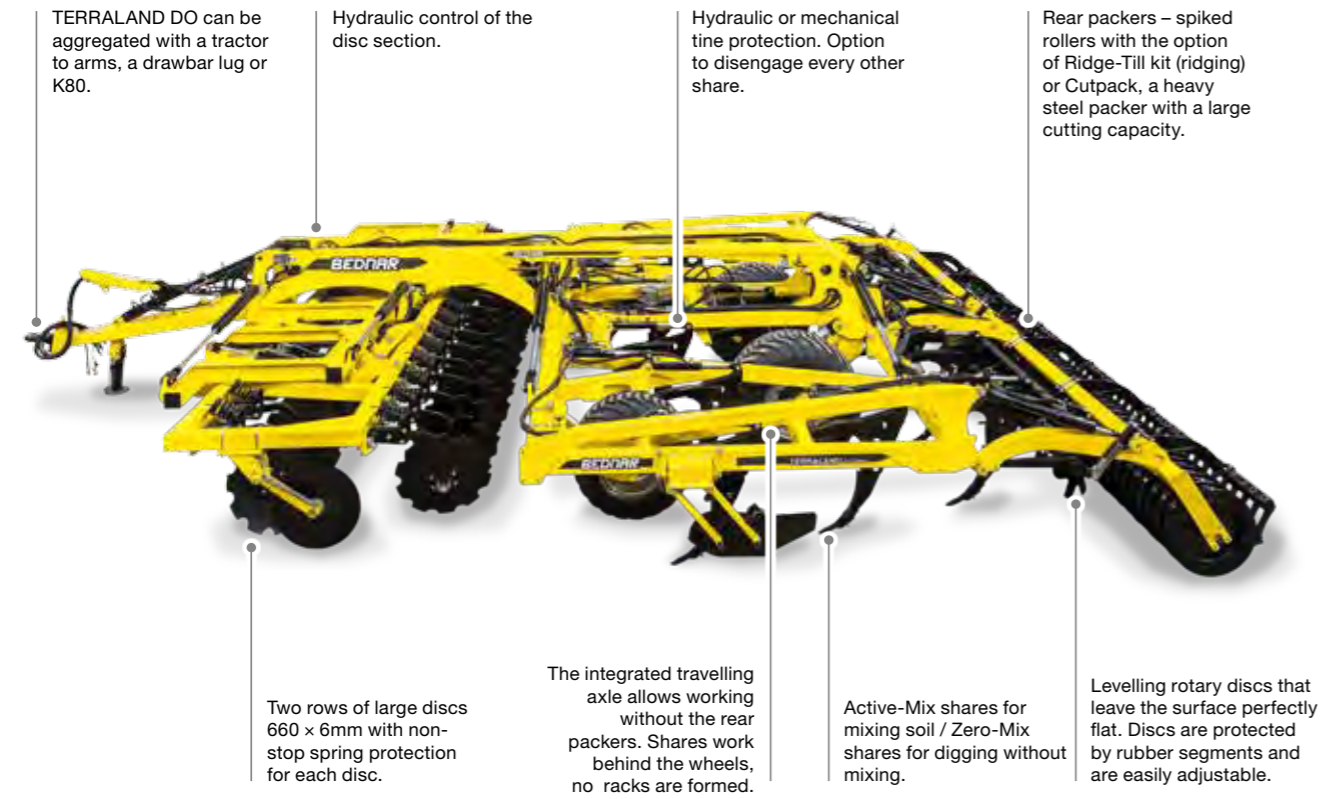
The size and distribution of post-harvest residue after MULCHER and TERRALAND DO. Very small parts of post-harvest residue perfectly mixed in the soil horizon. Low risk of spreading the European corn borer.



The size and distribution of post-harvest residue after the TERRALAND DO combined machine. Smaller parts of post-harvest residue, residue well and evenly mixed in the soil horizon.

Important working parts

TERRALAND DO



SPATIOUS MOUNTING OF THE INTEGRATED AXLE

The engineers mounted the axle into the frame in a way that provides a sufficient space between the axle and the wheels.



HYDRAULICALLY CONTROLLED MACHINE

The working depth can be set hydraulically using hydraulic cylinders that control the rear packers.

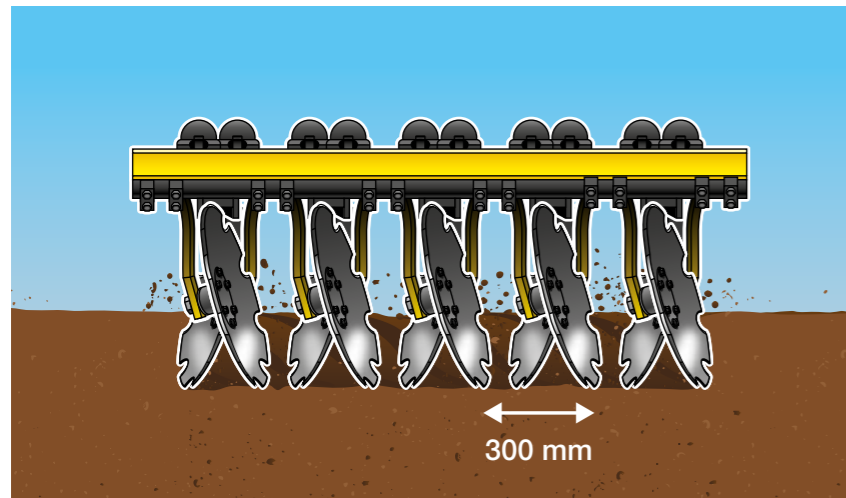


Disc section

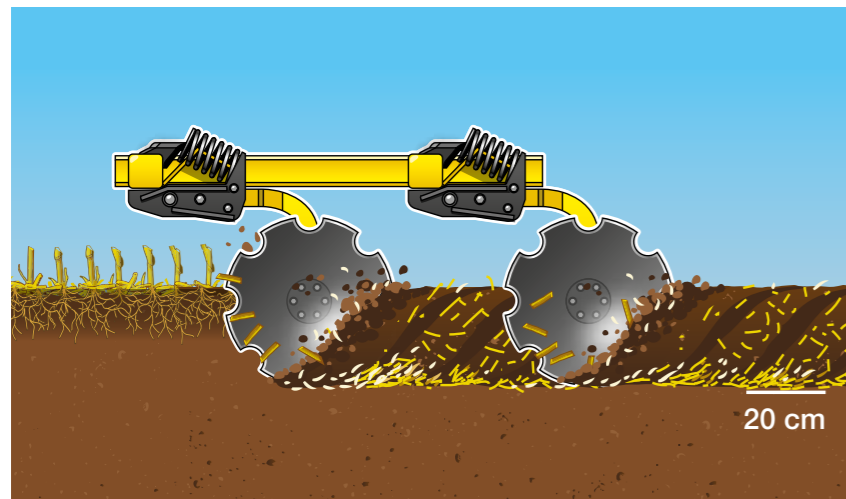


THREE BASIC FUNCTIONS OF THE DISC SECTION

1. Cutting a large quantity of mass, including tough stalks.
2. Basic mixing of plant material with soil in the top soil profiles.
3. Aggressive disruption of root barriers.



The work of 660mm discs is very aggressive but the disc section is also well-permeable thanks to the 300mm spacing between discs.



The discs cut and mix post-harvest residue into the top layer of soil. The discs disrupt the root barriers.



NON-STOP SPRING PROTECTION OF EACH DISC

Each disc is individually protected with a single-spring protection with the force of 270 kg/disc.



MAINTENANCE-FREE DISC BEARING

Each disc works on a robust maintenance-free bearing with lifelong filling.



HYDRAULIC CONTROL OF THE DISC SECTION

The working depth of the disc section is set hydraulically using hydraulic clamps.

Share section



ACTIVE-MIX



ACTIVE-MIX SHARES



ZERO-MIX SHARES

DEEP CULTIVATION

You will use the ACTIVE-MIX shares:

- Deep cultivation with active mixing of soil and crop residue up to 45cm.
- Undercutting the soil profile thanks to the side wings of tines. 100% overlap of the shares.
- Fitting Active-Mix shares with 80mm chisels or 40mm chisels for deep work.
- Active-Mix shares can be replaced with Zero-Mix shares.

UNDERCUTTING

You will use the ZERO-MIX shares:

- Undercutting the soil profile without mixing. Shares have a negative angle.
- Disruption of compacted layers.
- Mounting flat wings and tips on Zero-Mix shares.
- Zero-Mix shares can be replaced with Active-Mix shares.



chisel LONG LIFE 40mm



chisel LONG LIFE 80mm



wings LONG LIFE 185mm

SMART SHARES

The shares are spaced at 37.5cm. Every second share on TERRALAND DO can be hydraulically disengaged.

This technical design allows creating ridges at 75cm using the Ridge-Till kit (ridging discs) and prepare land with ridges that is protected against erosion and is a suitable agronomical solution to maintain moisture from snowfall in

winter. The ridge tips quickly dry out in spring and so it is possible to accelerate spring crop seeding.

This technical design allows working with the machine even in the **most extreme conditions**. A half of the shares is disengaged and the machine can thus work at the maximum working depth (45cm), even in complicated soils.



ROBUST SHARE PROTECTION

The TERRALAND DO shares are protected against overload hydraulically. The robust hydraulic protection preloaded to 800kg allows continuous operation.

The TERRALAND DO shares can also be protected mechanically by a shearing pin. This solution is recommended for lighter soils without stones.



ZERO-MIX

Packers

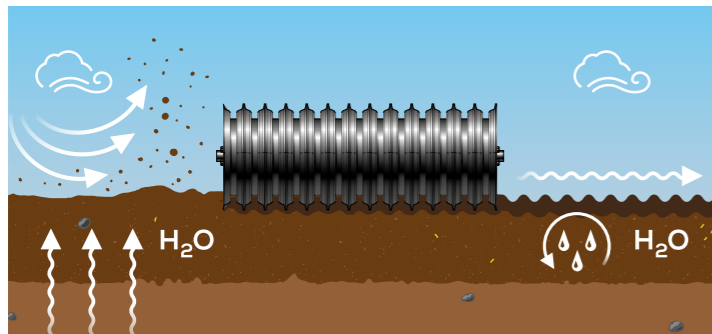
Technical data



CUTPACK PACKER

It is a heavy, steel packer consisting of sharp rings with a high cutting capacity and excellent consolidation effect.

- The sharp rings cut the remaining post-harvest residue that stays on the surface and press it into the soil.
- The large weight of Cutpack (222 kg/m) consolidates the top soil layer and protects soil against drying out.
- The large diameter of Cutpack (630mm) increases the permeability of the roller and creates a larger supporting area.
- Cutpack is equipped with a system of scrapers to prevent clogging.



SPIKED TANDEM ROLLERS

It is a steel double roller with a self-cleaning effect and excellent permeability, namely in wetter soils.

- The two rollers self-clean themselves thanks to the spikes on the rollers.
- The rollers have a very good consolidation capacity thanks to the weight of 202 kg/m.
- The roller can be combined with the Ridge-Till kit for making ridges.



TERRALAND DO

		DO 4000	DO 5000	DO 6500
Working width	m	4.1	4.9	6.4
Transport width	m	3	3	3
Transport length	m	10.2	10.2	10.2
Working depth share section*	cm	10-45	10-45	10-45
Working depth disc section*	cm	6-18	6-18	6-18
Number of discs	pcs	26	32	40
Number of shares	pcs	11	13	16
Share spacing	cm	37.5	37.5	37.5
Total weight**	kg	7 500-8 500	8 400-9 600	9 700-11 100
Recommended output*	HP	380-430	480-530	530-620

* depends on soil conditions ** depends on equipment



I did maximum for more yield this year

soil cultivation



STRIEGEL-PRO
Harrows



SWIFTERDISC
Disc Cultivators



ATLAS
Disc Cultivators



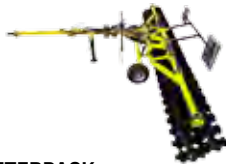
SWIFTER
Seedbed Cultivators



FENIX
Versatile Cultivators



TERRALAND
Chisel Ploughs



CUTTERPACK
Trailed Packers



PRESSPACK
Trailed Packers



GALAXY
Cambridge Packers

seeding and fertilizing



OMEGA
Seed Drills



FERTI-BOX
Hopper for Fertilizer



ALFA DRILL
Seed Hopper

inter-row cultivation mulching



ROW-MASTER
Inter-row Cultivator



MULCHER
Rotary Cutters

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