

BEDNAR
FARM MACHINERY



TERRALAND TN, TN_PROFI, TO

Increase the potential of your crops. Heal your fields.

JOY
OF FARMING



Why the TERRALAND?

BEDNAR TERRALAND TN is a chisel plough which allows fast economic and high quality deep cultivation. It was conceived as a full-value alternative to traditional tillage with a higher daily output (operating speed 6–12 km/h) and reduced energy consumption (up to 60 % compared to classic ploughs). The Terraland machines come in the TN, TN_PROFI (equipped with Cutter section).

BEDNAR TERRALAND TO with integrated transport axle located between the operating tines is an all-purpose machine, which can also be used without the rear tandem spiky rollers. To achieve even better results, the Terraland TO can also be connected with the Cutterpack for the final clod crushing and seedbed preparation, or with the Presspack for the final compaction of the tilled soil to prevent moisture loss, especially handy during the summer.

In contrast to traditional ploughs, Terraland chisel ploughs are able to till soil in the harshest conditions, to a greater depth whilst significantly cutting costs. The low tensile resistance guarantees low fuel consumption, the tine geometry even allows you to cultivate dry compacted soil and at the same time still retain that high quality. The rear tandem spiky rollers 'till' the clumps. They make the land flat and loosened, and plant residue is incorporated into the soil. There is no need for the land to be worked any further (levelling, rolling). The chisel plough working depth is significantly deeper than that of traditional ploughs and it's results are tangible such as the intensive break-up of the compacted soil layers and the restoration of the soil profile. Hence it provides your crops with a rich healthy root system, leading to greater yields.



“In recent years, the price of land has gone up remarkably, and so has the going rate to rent a hectare. Expanding the area for cultivation is not only difficult but expensive as well. The Terraland is a machine which is able to till the land intensively, deeply, affordably and restores the soil's climate to bring you a greater yield per hectare, and thus also greater revenue without having to expand your farm.”

Jan Bednář

Why the TERRALAND?

MAIN ADVANTAGES OF THE MACHINE

- The machine main frames are made of high strength Alform steel.
- The triple ringed angle of the working tines ensures easy soil penetration and the ideal throughput of the machine.
- An extremely high machine throughput thanks to the frame clearance and a tine distance.
- The Quick-Change system for the chisels is a smart solution that enables the swift change of the machine operating components.
- The rear tandem spiky rollers can be set hydraulically and crush the final persistent clumps.
- Side rollers and side shields guarantee a level field without any visible passes.
- Hydraulic auto-reset system of tines for extremely heavy or stony soils.

TO version

- The integrated axle, placed between the working tines, will even allow you to work without rear tandem spiky rollers.
- The CUTTERPACK trailed packer can be connected for the final clod crushing and seedbed preparation.
- The PRESSPACK trailed packer can be connected for final and even compaction as well as clod crushing.

AGRONOMIC ADVANTAGES OF THE MACHINE

- Loosens deeper than standard cultivators with a max. depth of up to 55 cm, which results in the roots having access to more moisture.
- There is more air in the soil which is needed to create a better soil climate.
- Lower soil layers are not brought up to the higher soil profiles; mixing takes place in the upper section of the soil layers.
- Plant residue is covered over after the harvest.
- Livestock manure and digestates from biogas stations are easily incorporated in one pass.
- Increased rainwater absorption that in turn eliminates puddles and long-term wet patches.
- Levels the soil surface after the previous field operations, or tracks made by heavy machinery.
- Recompacts the soil to preserve moisture in the summer by using the detachable PRESSPACK, or final crushing work for seedbed preparation by using the CUTTERPACK.



TERRALAND TN



“We have renovated 750 ha, all in canola. It has decreased the difference in soil profile, mixed the organic mass, brought the potassium to upper soil profile and soil aeration. After the rip there is a big difference in soil profile compared to non ripped. The areas where we used TERRALAND the plants of canola have a nice even length, thick stubbles, nicer process of flowering process, stronger plants with massive straight root system, In general increase of bio mass. The depth was controlled on 350–450 mm depending on which part of the arable areas. Definitely we will continue with this technology and Bednar machinery in future.”

Peter and Leigh Doltan

Totad Gin Farming | Merredin | Western Australia (Australia)
8000 ha | TERRALAND TO 6000

BENEFITS WHICH RESULT IN SAVINGS AND GREATER YIELDS:

- **Quality deep tilling in one pass** – One pass of the Terraland means even faster soil loosening below the plough pan. It also covers over all plant residue, livestock manure and digestates etc.
- **More water and air** – By tilling with the Terraland, air gets into the soil and the impermeable layers are broken up, allowing the root system to get a greater reach.
- **Less time needed** – By using the Terraland, you can significantly reduce the time required in comparison to traditional ploughs. The Terraland can prepare the soil in a way that minimises the need for any further soil preparation work. The soil remains clod-free and loosened.
- **Deeper soil tillage and lower fuel consumption** – Thanks to the triple angle tine geometry, it is easy to till deeper soil layers at affordable fuel costs.
- **The final touches** – To maximise the finish on the job, you can opt for the Terraland TN_PROFI with cutter section. To maximise the finish on the work TERRALAND TO, you can attach the Cutterpack or the Presspack to the machine.
- **The costs associated with the spare parts** that are used, are significantly lower than those for traditional ploughs.

Usage

TERRALAND IS USED FOR:

- Deep loosening, breaking up the plough pan and creating superior soil conditions for the subsequent crops whilst restoring the soil climate (more air, more water).
 - Incorporating livestock manure in a single pass of the machine. It can even incorporate livestock manure applied in large hectare doses.
 - Incorporating a large amount of plant residue in one pass, such as maize, oil seed rape...
 - Incorporating digestates created in biogas stations.
 - Working in very wet and soggy conditions, e.g. in late autumn or winter. The Terraland has a high throughput.
- And much more...



HYDRAULIC AUTO-RESET SYSTEM OF TINES

Hydraulic auto-reset system for tough stony conditions and extremely compacted soils. The securing power for each tine starts at 1 000 kg and ends at 1 500 kg.



2 ROWS OF WINGED TINES, 70 MM OR 40 MM CHISELS

The tines can be fitted with chisels of 70 mm (except TO version) width for intensive loosening or chisels of 40 mm (include TO version) width for tougher conditions and deep work. The tine wings cut through the lower layer to eliminate clod formation.



TANDEM SPIKY ROLLERS

The rear tandem spiky rollers with a diameter of 245 mm have overlapping spikes which, clean the rollers allowing the machine to work in the harshest conditions without clogging up. They have a weight of 202 kg/m.



TILLING RAPE STUBBLE, TERRALAND TO

- depth: 35 cm
- operating speed: 10–12 km/h
- fuel consumption: 16–18 l/ha



TILLING WINTER BARLEY STUBBLE, TERRALAND TN_PROFI

- 1x discing, depth 15 cm
- Terraland use, depth: 40 cm
- operating speed: 10–12 km/h
- fuel consumption: 18–20 l



TILLING GRAIN MAIZE STUBBLE, TERRALAND TN

- Terraland use, depth: 45 cm
- operating speed: 7–9 km/h
- fuel consumption: 23–25 l

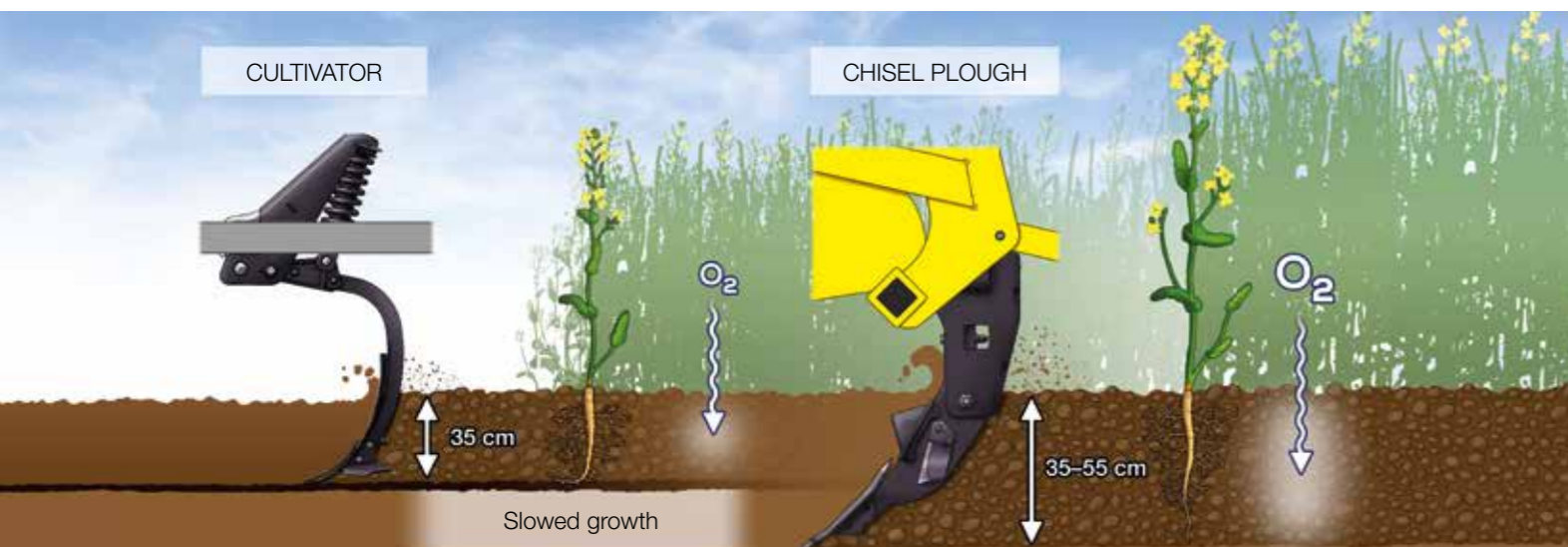
3 angles for easy work



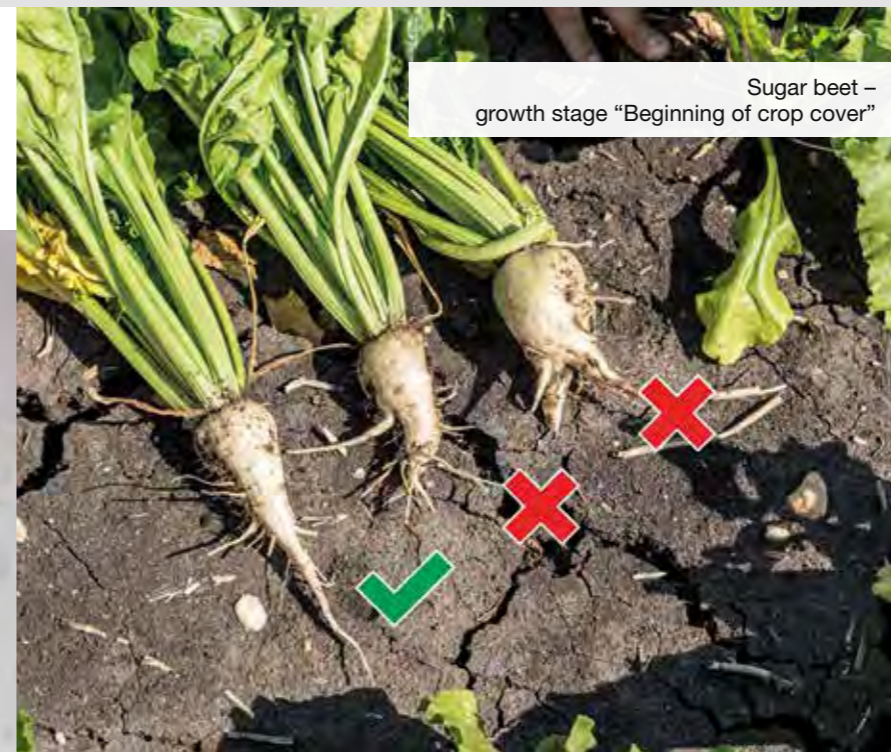
WHY ITS WORK IS INTENSIVE AND EFFECTIVE

The machine breaks up the plough pan and the chisel tips reach right under this compacted layer. The soil in the upper soil profile is mixed intensively with the plant residue and is covered. These superior results are achieved thanks to the tines which are bent at 3 different angles:

- The first angle is positioned in such a way as not to carry the lower soil layers (poor in nutrients) up to depths where the seeds are sown. The first angle cuts aggressively through the plough pan.
- The second angle generates an intensive mixing effect, mixing plant residue with the soil. This creates a homogeneous organic material.
- The third angle forces tilling and mixes the organic matter for its final incorporation.



Water and air



THE VERTICAL H₂O MOVEMENT EFFECT – A SOLUTION FOR WATERLOGGED FIELDS, CREATING ACCESS TO THE ROOTS FOR THE WATER

Over the last ten years, the performance of agricultural machines has increased considerably, and with the performance of the machines, the weight of the machinery has increased too. These extra kilos, often tons have also resulted in marked compaction of agricultural soils. This is evidenced by an increase in long-term waterlogged land, even where rainfall levels are average. Another effect which results in the blockage of water movement is long-term tillage at the same working depth. Rainwater cannot penetrate the soil and groundwater cannot reach the crop roots. The soil is blocked. The solution is to use the Terraland chisel plough which breaks up the compacted soil layers, supporting rain water absorption (preventing waterlogging) and facilitating ground water access to the roots.

NOTE: When tilling with the Terraland in summertime, e.g. before sowing winter rape, the soil must be packed using the heavy packer. The soil is loosened and aerated – the topsoil is compressed with the packer so that the upper layers don't dry out, preserving the initial moisture for the seeds.

YIELDS DEPEND ON A SOIL'S AIR CONTENT

In addition to facilitating groundwater access to the roots, high yields require sufficient oxygenated air in the soil. The air in the soil creates a gaseous soil phase necessary for biological and chemical reactions, which take place in the soil and which are one of the building blocks for plant life. Air fills up the pores without water. The air in the soil contains more CO₂ than on average (by 0,2 to 0,7 %), and the oxygen content in the soil is 20 % lower than in the atmosphere. The Terraland chisel plough enriches (oxygenates) the soil in one pass all the way down to the deeper layers. Plants respond faster and more efficiently in aerated soils.



Operating components

More accessories, service, maintenance and setting up

TERRALAND SAVES TIME AND MONEY

Using the Terraland significantly reduces costs:

- Costs related to field operations, i.e. costs related to further land preparation. Traditional ploughs create clumps, then tilling which often requires a number of operations on the field to create the right conditions for sowing.
- Costs related to time, i.e. less operations = less time required. Time is money in the world of farming. Furthermore the Terraland is an easy machine to control and the great thing is anyone can work with the chisel plough. A traditional plough requires a person with experience.
- The costs associated with the replacement of the wearing parts for the Terraland chisel plough are significantly lower than those for traditional ploughs. You can work deeper, faster, without clumps and with lower operating costs.

COMPARED FACTORS	TERRALAND 	PLOUGH 
Most common working depth	30–45 cm, more water and air	15–25 cm, creating impermeable layer
Most common operating speed	8–12 km/h	6–8 km/h
Most common operating width	3 m	3 m (7body plough)
Costs for subsequent field working	Lower – no clods	Clods
Costs for wearing parts	Lower – only chisels	Chisel, blades, sole, replacement part, mouldboard
Investment costs	Lower for same operating width	Higher
Fuel consumption	Lower at greater working depth	Higher

EASY TO USE, MAINTAIN AND SET-UP

An important factor for any farmer is his MO – maintenance and set-up. The Terralands are simple machines which require minimal maintenance. The Terraland chisel plough only needs to be set for the tractor arms and the rear hydraulically controlled rollers.

3POINT CATEGORY III./IV. LINKAGE



The TERRALAND TN and TN_PROFI are connected to a tractor with a 3point linkage. The mounted model has the advantage of being easy to manoeuvre at the headlands and on the roads.

SIDE ROLLERS



The TERRALAND TN can be equipped with additional folding side rollers. These rollers prevent the formation of side ridges. The field stays level even at the sides of the machine.

MACHINE MAINTENANCE



The TERRALANDS are maintenance-free machines that include top quality roller bearings, which also don't require any lubrication.

REPLACE YOUR CHISELS WITH THE COMFORTABLE QUICK-CHANGE SYSTEM



Each tine is fitted with a double-sided chisel (80 mm) by using the Quick-Change system. This is based on inserting the double-sided chisel at the end of the tine and fixing it with one securing pin. The Quick-Change system is user friendly and offers comfort and peace of mind.

EASILY ADJUSTABLE WORKING DEPTH



The TERRALAND TN and TN_PROFI working depth is set hydraulically and controlled from the tractor cabin by the positioning of the rear tandem rollers and the tractor arms.

TRAILED PACKERS CAN BE ATTACHED



The TERRALAND TO is equipped with a drawbar that has hydraulic and electric connectors suitable for pulling other tools to complete the deep tillage. The CUTTERPACK or PRESSPACK trailed packers can be attached to the machine.





TERRALAND TN



TERRALAND TN + FERTI-BOX FB_TN

TERRALAND TN

Terraland TN – the machine for large amounts of plant residue

The Terraland TN is a mounted chisel plough suitable for tractors with 150 hp or greater (depending on soil conditions). The TN model comes in 2 versions, the TN_D model which allows for a maximum working depth of 65 cm, and the TN_M model which can reach a maximum working depth of 55 cm. The tine securing for both versions is either mechanical (tightening bolts) or hydraulic (hydraulic cylinders).

The TN model can also be used during the summer; if you intend to sow afterwards, e.g. winter rape, we would recommend that you immediately compact the soil behind the machine so that no moisture is lost by the deeply tilled soil profile drying out.

TERRALAND TN EXCELLENT THROUGHPUT



The high frame clearance (up to 86 cm), spacing between tines and rear tandem spiky rollers have been designed to even allow for a high material throughput in very challenging conditions.

IT EVEN GETS THE JOB DONE ON SOGGY WATERLOGGED LAND



The Terraland TN design allows you to work with the machine on soggy waterlogged land. The tilled land loosens up fast and water seeps down through the land. The land drains quickly, the soil is restored and ready for use in no time. Waterlogged fields are a thing of the past.

TN_M



TN_D





TERRALAND TN PROFI

TERRALAND TN_PROFI

Terraland TN_PROFI and sowing

Terraland TN_PROFI is a Terraland TN chisel plough with an additional 2 rows of self-cleaning cutter discs. The Terraland TN_PROFI, equipped with 2 rows of tines, tandem spiky rollers and a cutter disc section, is a machine which can create the right conditions for seed drills in just one pass. The cutter disc section finishes off the job and performs the following tasks:

- Finely cuts clods, creating a soil structure which allows you to use a seed drill for sowing right after the Terraland TN_PROFI.
- Covers and conceals plant residue in the soil so that the land remains without as little plant residue as possible and the plant matter can degrade rapidly.
- Levels the soil behind the machine so that a perfectly level field is created for sowing without any furrows or other imperfections.

CUTTER DISCS

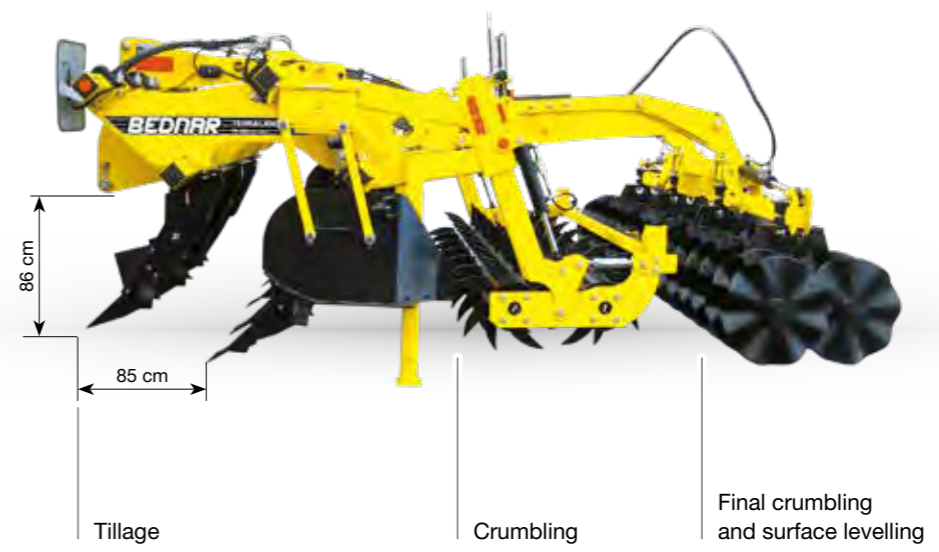


The cutter disc section (battery) is formed of 2 rows of discs of 520 x 5 mm in diameter. These discs cut through and cover the plant material and level the soil for the seed drill. The cutter discs are embedded into each other. This means the discs clean themselves in wet and soggy conditions.

CUTTER DISC TRANSPORT



The cutter disc section folds up hydraulically above the machine. When set in this position it allows you to work without a rear cutter section, e.g. in conditions with a larger amount of plant residue.





TERRALAND TO

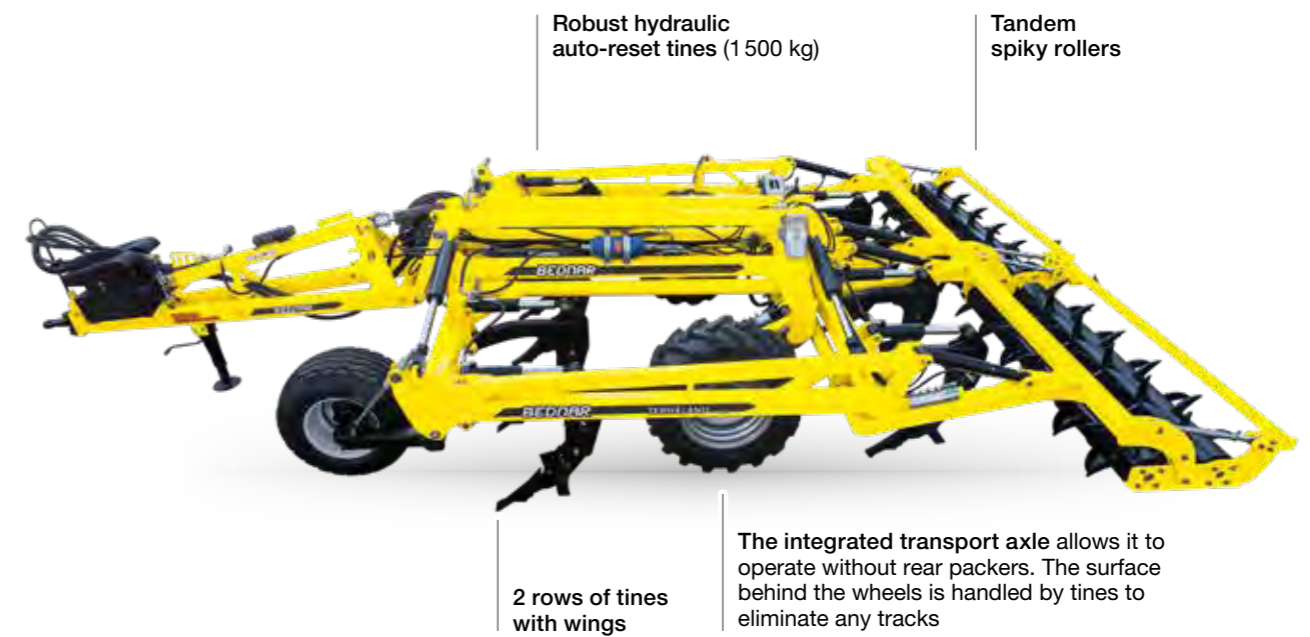


TERRALAND TO

TERRALAND TO

work in extreme conditions thanks to the integrated axle

The integrated axle located between the operating tines allows the machine to work without rear tandem rollers, with more tines working behind the transport wheels. In wet conditions, you can simply remove the rollers from operation and till the soil without rollers. Particularly when tilling in winter, the soil does not need to be compacted. Furthermore, with the axle located in the centre of the machine, it is more adept at turning at the headlands – a shorter turn radius.



Robust hydraulic auto-reset tines (1 500 kg)

Tandem spiky rollers

2 rows of tines with wings

The integrated transport axle allows it to operate without rear packers. The surface behind the wheels is handled by tines to eliminate any tracks



„We purchased the Terraland TO for two reasons. The first reason was a problem with long-term compaction on our land, and the second reason was waterlogged land. We use the Terraland TO to till the land to a 40 cm depth, eliminating compacted soil and creating the best possible conditions for the subsequent crop. After just one pass, the soil is no longer compacted and the field remains level thanks to the high quality spiky rollers,” says farm manager Andreas Hansen.

Josef Schlüter from BEDNAR FMT GmbH (left);
Maik Schröter, tractor operator (right)

Agricultural co-operative Elbniederung Eutzsch e.G. (Germany)
2 300 ha | Terraland TO 6000

Technical data



TERRALAND TN



		TN 3000 M5R / D5R	TN 3000 M7R / D7R	TN 4000 M7R / D7R	TN 4000 M9R / D9R
Working width	m	3	3	4	4
Transport width	m	3	3	4	4
Transport length	m	2,9	2,9	2,9	2,9
Working depth*	cm	15–55 / 15–65	15–55 / 15–65	15–55 / 15–65	15–55 / 15–65
Number of tines	pcs	5	7	7	9
Spacing of tines	cm	60	40	56,5	42,5
Total weight**	kg	1 850–2 200 / 1 950–2 350	1 950–2 350 / 2 250–2 620	2 220–2 600 / 2 520–2 890	2 480–2 860 / 2 800–3 180
Recommended output*	HP	150–180 / 200–250	180–220 / 220–280	200–260 / 250–300	220–300 / 280–350

* depends on soil conditions ** depends on the machine accessories

TERRALAND TN H



		TN 3000 H M5R	TN 3000 H M7R	TN 3000 H D7R	TN 4000 H M9R	TN 4000 H D9R
Working width	m	3	3	3	4	4
Transport width	m	3	3	3	4	4
Transport length	m	3,1	3,1	3,1	3,1	3,1
Working depth*	cm	15–55	15–55	15–65	15–55	15–65
Number of tines	pcs	5	7	7	9	9
Spacing of tines	cm	42,5	40	40	42,5	42,5
Total weight**	kg	1 800–2 150	2 625–2 980	2 700–3 080	3 360–3 760	3 470–3 850
Recommended output*	HP	150–180	180–220	220–280	220–300	280–350

* depends on soil conditions ** depends on the machine accessories

TERRALAND TN PROFI



		TN 3000 PROFI D7R	TN 3000 H PROFI D7R	TN 4000 H PROFI D7R	TN 4000 PROFI D9R	TN 4000 H PROFI D9R
Working width	m	3	3	4	4	4
Transport width	m	3	3	4	4	4
Transport length	m	3	3,1	3,1	3	3,1
Working depth*	cm	15–65	15–65	15–65	15–65	15–65
Number of tines	pcs	7	7	7	9	9
Spacing of tines	cm	40	40	56,5	42,5	42,5
Total weight**	kg	3 400–3 600	4 150–4 500	4 350–4 700	4 150–4 350	4 700–5 050
Recommended output*	HP	230–290	230–290	230–290	290–360	290–360

* depends on soil conditions ** depends on the machine accessories

TERRALAND TO



		TO 4000	TO 5000	TO 6000
Working width	m	4	5	6
Transport width	m	3	3	3
Transport length	m	8,6	8,6	8,6
Working depth*	cm	15–55	15–55	15–55
Number of tines	pcs	9	11	13
Spacing of tines	cm	43	43	43
Total weight**	kg	6 280–6 820	6 950–7 380	7 670–7 810
Recommended output*	HP	320–380	400–500	500–600

* depends on soil conditions ** depends on the machine accessories

PRESSPACK

a solution for heavy soils

PRESSPACK PT is a trailed packer, consisting of 2 rows of self-cleaning steel rings, which can be used on its own or in combination with other BEDNAR machines. The sharp edges of the rings effectively break up clods regardless of soil conditions and level the surface so that the field is ready for sowing. The PRESSPACK's heavy weight of 600 kg/m ensures that the packer effectively compacts the topsoil, preventing moisture loss, which is needed for the growth of the subsequent crops. If the PRESSPACK is used with the TERRALAND TO chisel plough, you can till the soil intensively in one pass up to a depth of 55 cm, cutting up compacted soil layers, cutting through clods and compacting the upper soil layer.



EASY PACKER TRANSPORT

CUTTERPACK and PRESSPACK packers are easily transported out on the road thanks to the reduced set length. Transportation is safe and quick.



SELF-CLEANING RINGS

Each PRESSPACK ring is embedded into the next one. This creates the self-cleaning effect of the packer in those wet conditions whilst still fully compacting along the working width.



"In just one pass, the soil is loosened deeply and I then seal it with the Presspack so the required moisture is not lost, e.g. for sowing winter rape."

Petr Korous, agronomist

Agro Korous
District of Litoměřice (Czech Republic)
1000 ha



PRESSPACK PT

		PT 4000	PT 5000	PT 6000
Working width	m	4,6	5,3	6,3
Transport width	m	2,5	2,5	2,5
Transport length	m	4	4	4
Number of discs/rings	ks	46	54	64
Total weight*	kg	2800–3300	3300–3900	3600–4500
Recommended output**	HP	40	50	60

*depends on the machine accessories **depends on soil conditions

CUTTERPACK

seedbed preparation

CUTTERPACK CT is a trailed packer, consisting of 2 rows of self-cleaning cutting discs, which can be used on its own or in combination with other BEDNAR machines. The discs cut through plant residue, crumble clods, mix the plant material into the soil and level the surface so that the field is ready for sowing. The CUTTERPACK is equipped with a telescopic drawbar which significantly reduces the transport length. If the CUTTERPACK is connected to the TERRALAND TO chisel plough, you can intensively till the soil down to a depth of up to 55 cm in one pass, cutting through soil layers, crumbling, levelling the surface and preparing the right conditions for sowing.



SELF-CLEANING CUTTER DISC SECTION

Cutter discs are embedded to each other. This means the discs clean themselves in very wet conditions. Disc diameter 520x5 mm.



TELESCOPIC DRAWBAR

To reduce the set transport length, the CUTTERPACK and PRESSPACK drawbar is telescopic. The drawbar is retracted for transport, giving a total set length of 11 m, and for work the drawbar is pulled out to ensure there is no collision when turning at the headlands.



“The TERRALAND and CUTTERPACK prepare my soil in one pass so that in most cases I can use a seeder immediately. The soil is loosened and ready.”

Josef Červený, owner

Farma Srch, a. s.
District of Pardubice (Czech Republic)
650 ha



TERRALAND TO + CUTTERPACK CT



CUTTERPACK CT

		CT 4000	CT 5000	CT 6000
Working width	m	4,6	5,3	6,3
Transport width	m	2,5	2,5	2,5
Transport length	m	3,8	3,8	3,8
Number of discs/rings	ks	40	46	54
Total weight*	kg	1 770–1 970	1 870–2 070	1 950–2 150
Recommended output**	HP	35	45	55

*depends on the machine accessories **depends on soil conditions



TERRALAND TN + FERTI-BOX FB_F

Functional technology

BENEFITS THAT BRING SAVINGS

- Connecting the fertilisation and soil-processing operations into a single operation.
- Supplementing the deficit of nutrients and their balance in the soil.
- Improving the accessibility of nutrients by plant roots.
- Storing nutrition in the soil has a positive effect on the architecture of the root system.
- Fertilisers applied into the soil are often better accepted by many plants and thus better utilised.
- Fertilisers support deep rooting of plants which provides access to moisture and thus helps plants overcome periods of insufficient precipitation.



DEEP CULTIVATION WITH THE APPLICATION OF NUTRITION INTO THE SOIL PROFILE BRINGS EXCELLENT RESULTS

The TERRALAND chisel ploughs break down compacted layers, enhance air in the soil and support the moisture regime. When FERTI-BOX is connected directly after the TERRALAND ploughshares, fertiliser (N, P, K, Mg, S) is applied into the pre-set depth of the soil profile. The combination of deep cultivation and basic fertilisation into the soil creates a favourable soil environment for the growth of a corresponding rich root system which can intensely and effectively nourish the above-ground part of the plant.



„We were one of the first ones that started using the technology of applying nutrition into the soil profile. We have been using the system of direct soil nutrition with deep cultivation for four years. We have achieved excellent results in spite of the fact that we work with very heavy soils.“

Jiří Sobota, General Manager

ZS Sloveč, District of Nymburk (Czech Republic)
1 000 ha
Terraland TO 6000, Ferti-Box FB 3000, Swifter SE 12000,
Row-Master RN 8100 S



TERRALAND TN_PROFI

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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Your Authorized Dealer



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