Baertschi
Perma-Agrartecnic

OEKOSEM 4R750
ROTOR-STRIPTILL SYSTEM



CONSERVE TIME AND FUEL

By consolidating multiple work steps into a single pass, you considerably decrease field service time and minimize fuel consumption.

LIMITING EROSION

By managing the soil on up to 60% of the surface cultivated land, you safeguard the soil from erosion and sustain a stable soil system.

IMPROVED SOIL CONDITIONS

By aerating the soil in the root zone, a natural, enduring one is produced ventilation, which facilitates improved absorption of water and nutrients by plants.

TARGETED FERTILIZATION

By accurately positioning the fertilizer within the root zone of the plants, you guarantee optimal nutrition, reduced losses and increased yields.



Oekosem 4R750

60%	300cm	4×75cm
UNTOUCHED AREA	WORKING WIDTH	ROW SPACING

ROTOR STRIPTILL SYSTEM



Why choose Oekosem Rotor-StripTill?

The Oekosem rotor strip-till system, validated in Switzerland for more than 25 years, cultivates merely 40% of the soil area, leaving 60% undisturbed. This approach conserves moisture, mitigates erosion, and enhances soil health. By integrating crop residue management, deep loosening, fertilization, and sowing into a single operation, costs are minimized while ensuring consistent yields, even in arid conditions.

ADVANTAGES

- Single-crossing protocol
- Decreased labor expenses
- Increased soil moisture
- Mitigates Soil Erosion
- Consistently elevated yield
- Reduced fuel consumption

MANAGEMENT OF THE EUROPEAN CORN BORER

The Baertschi Duo-Drill efficiently shreds corn stalks and rootstocks to inhibit the overwintering of the European corn borer, while concurrently facilitating the sowing of cover crops in a single operation.

Technical Specification Sheet



Dimensions

Number of rows	4
Row spacing	75 cm
Working width	300 cm

Performance

Subsoil aeration depth	20-35 cm
Rotary depth	7-15 cm
Tractor horsepower	120-140 HP

construction

drive	four-wheel drive
Tire dimensions	44 inches, suitable for flooring
Frame	Premium fine-grained steel
Service Duration	30+ year
attachment	3-point rear hydraulic lift
Seed drill compatibility	Standard precision seed drills, semi-automated



Experience Soil Conservation with The Oekosem



Developed in Switzerland more than 25 years ago, the Oekosem Rotor Strip-Till system was created with a singular objective: to safeguard the soil while enhancing productivity. Rather than tilling the entire field, the system operates solely within a narrow planting strip, leaving the adjacent soil undisturbed. This methodology guarantees the following:

- Mitigates soil erosion resulting from wind and water.
- Mitigates soil compaction
- Maintains soil structure and moisture retention
- Enhances long-term soil vitality



Over the years, the system has undergone continuous development informed by practical experience and feedback from farmers. Today, its effectiveness is well-established—nearly 40% of total Swiss maize production depends on this method, attributed to the following advantages:

- Dependable returns
- Reduced operating expenses
- Sustainable soil conservation

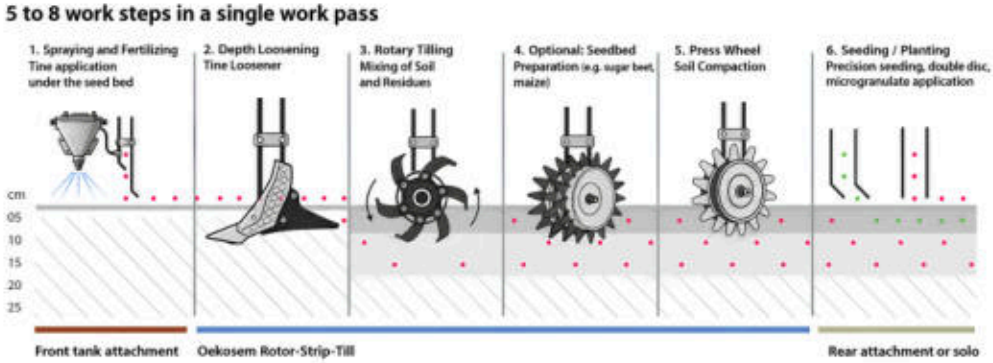


conventional (plough/harrow)



Oekosem

How the System Works

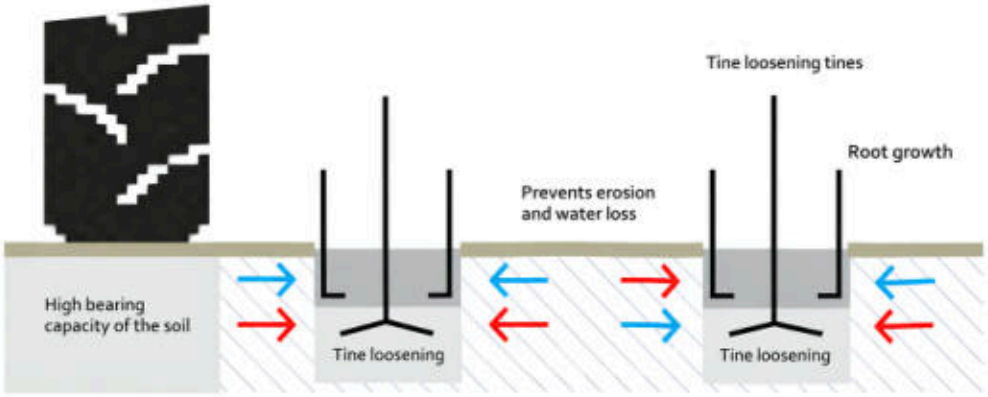


In each planting row, a deep loosening tooth positioned directly beneath the working depth of the milling machine delicately aerates the soil without excessive mixing.

while the milling tools:

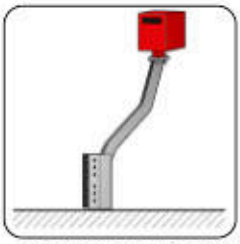
Loosen the upper 7–15 cm of soil (depending on the working depth setting).

- Integrating crop residues into the soil
- Enhance soil aeration
- Establish a meticulously organized seedbed to promote optimal plant growth.



FERT-MIT & FERT-AUS

Two patented systems, one goal:
nutrients exactly where the root needs them.



FERT-AUS: *depot at 16–25 cm*

FERT-AUS®: The Deep Depot

FERT-AUS guides the fertilizer from behind to the foot of the cultivator tine and places it as a concentrated depot at 16–25 cm, deep inside the loosened, rootable strip. The nutrients sit exactly where the roots will grow, ready for the plant to take up. Optionally even deeper. Exclusive, patented option.

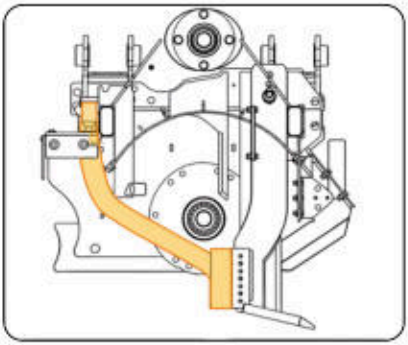


FERT-AUS fitted to the cultivator tine

Which depth fits your field?

The Oekosem loosens, strip-tills and fertilizes in one pass. Choose your depth:

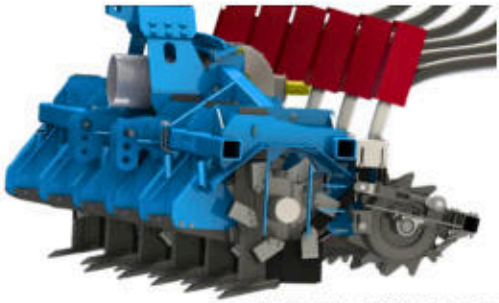
- **FERT-MIT (standard):** deposit in the middle of the strip, mainly at 10–16 cm.
- **FERT-AUS (option):** concentrated depot at 16–25 cm in the rootable strip, optionally even deeper.



FERT-MIT: *standard, 10–16 cm*

Your benefits with FERT-AUS

✓ Nutrients right in the root zone
✓ Higher nutrient efficiency
✓ Less leaching loss
✓ Even plant development
✓ Fewer passes, less fuel
✓ For corn, rapeseed, sugar beets, row crops



Oekosem with FERT-AUS ***option***

Plants with Rotor-Strip-Till

A field experiment

Excerpt from the field trial results published on landwirt.com – January 2014

STUDY SITE 1

Oberlimbach, Styria

Corn

DRY MATERIAL PERCENTAGE (%)	
row rotator	**74,1 %**
Conservation tillage	**73,8 %**
plow	**71,9 %**

DRY WEIGHT (86% DM, KG/HA)	
row rotator	**7,920 kg/ha**
Conservation tillage	**7,840 kg/ha**
plow	**7,780 kg/ha**

In reference to the plow (%)	
row rotator	**102 %**
Conservation tillage	**101 %**
plow	**100 %**

102 % **Enhanced yield in comparison to plowing**

EXPERIMENTAL FACILITY TWO

Bad Wimsbach-Neydharting (Upper Austria)

Corn

DRY MATERIAL PERCENTAGE (%)	
Conservation tillage	**64,6 %**
No to	**64,9 %**
row rotator	**63,9 %**
plow	**63,8 %**

DRY WEIGHT (86% DM, KG/HA)	
row rotator	**9,611 kg/ha**
Conservation tillage	**8,938 kg/ha**
plow	**8,625 kg/ha**
No to	**6,044 kg/ha**

In reference to the plow (%)	
row rotator	**111 %**
Conservation tillage	**104 %**
plow	**100 %**
No to	**70 %**

111 % **Enhanced yield in comparison to plowing**

PEAK YIELD AMONG ALL METHODS

Oekosem, the all-season equipment



Some Typical Fields of Action

Oekosem is offered in a range of configurations to accommodate diverse requirements.



Maize cultivation
Optimal for maize cultivation. Mitigates erosion, enhances heat and moisture retention, and ensures consistent yields—regardless of drought or heavy rainfall.



Rapeseed, sunflowers, and quinoa.
Optimal when used in conjunction with the Baertschi Duo seeder. Double-row sowing enhances root development, soil aeration, nitrogen retention, and pod formation, resulting in increased yields.



Sugar beet
The Oekosem-P leveling roller establishes a refined seedbed in a single operation, guaranteeing uniform emergence, earlier sowing, enhanced traction for combine harvesters, and increased yields.



Cabbage, vegetables, strawberries, and herbs.
They are optimal for water conservation. Direct seeding strips mitigate erosion, prevent soil compaction, enhance the traction of harvesting equipment, and sustain elevated soil moisture levels to improve crop yields.



Legumes & Soybeans
Firm tracks mitigate soil compaction, while enhanced light penetration and moisture retention foster fully developed pods and consistent yields, even in the face of heavy rainfall or drought.

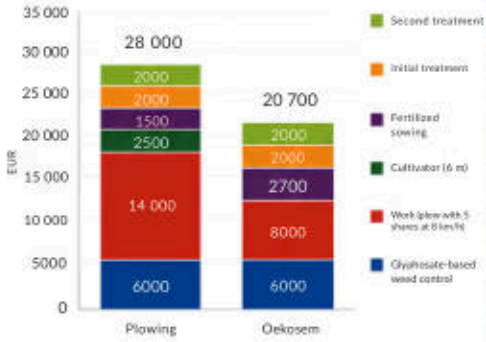
Oekosem vs plowing

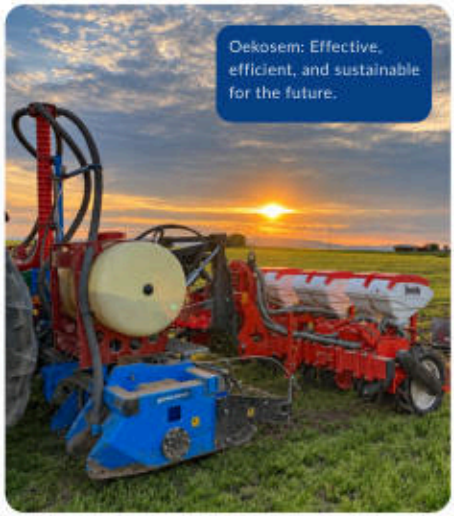
Costs
-26%

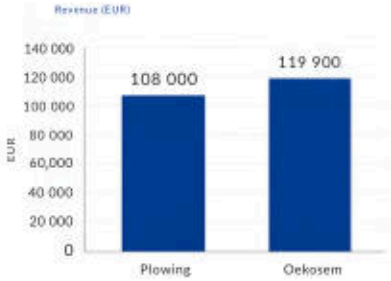
Yield
+11%

Net income
+24%

COST SUMMARY (EUR)







KEY ADVANTAGES

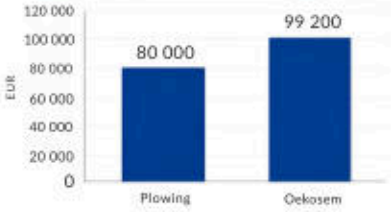
Costs: -26%
You save €7,300 on 100 hectares.

Yield: +11%
Higher yield from an equivalent surface area.

Net profit rose by 24%.
€19,200 in additional profit per 100 hectares

Better for the soil and for the future
Reduced tillage, improved soil structure, and enhanced sustainability

NET PROFIT (REVENUE – COSTS, IN EUR)





SUMMARY

The Oekosem Rotor-StripTill technique reduces production costs, increases yields, and improves profitability compared with traditional tillage while preserving soil and establishing the foundations for sustainable agriculture.

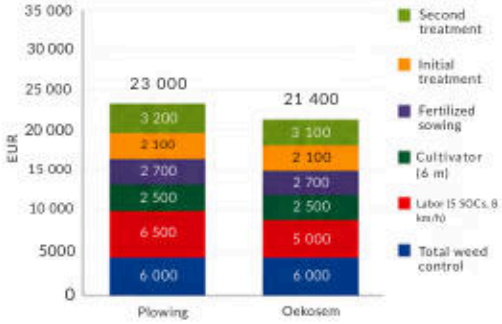
Oekosem vs. Mulch Seeding

Costs
-7%
Savings of €1.600 per 100 hectares

Yield
+7%
+469 units per 100 hectares

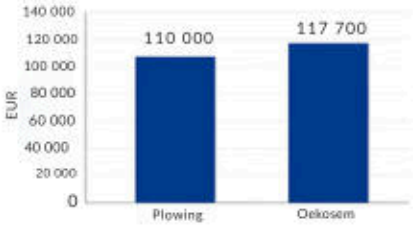
Net profit
+11%
+€9,300 for 100 hectares

Cost Summary (EUR)

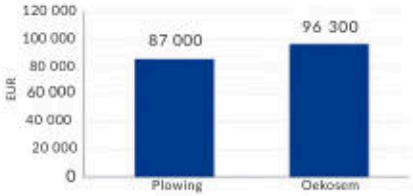




REVENUE (EUR)



NET PROFIT (REVENUE – COSTS, EUR)



Key Advantages

Costs: -7%
You save €1,600 per 100 hectares.

Yield: +7%
Higher yield from an equivalent surface area.

Net profit: +11%
€9,300 in additional profit across 100 hectares

Better for the planet and for future generations
Reduced tillage, improved soil structure, and enhanced sustainability



Replacement Components

Picture	Item No.	Article number	Drawing number	designation
	**001**	9000003	558504000000	Bondioli gearbox (360 horsepower)
	**002**	9018821	DS0N101CE0Q7001X	Drive shaft featuring a cam-type clutch, 3600 Nm – 1000 rpm (770.9901.XX)
	**003**	–	999.2987.0	Drive shaft featuring a cam-type clutch 1800 NM (170 PS starr)
	**004**	93599037	999.2989.0	Cardan shaft featuring a cam-type clutch rated at 2500 Nm (right)
	**004**	93599038	999.2989.1	Cardan shaft featuring a cam clutch rated at 2500 Nm (left)
	**005**	93599059	773.6525.01	Drive flange milling rotor to gearbox shaft (Oekosem VI – 4R750)
	**006**	93599058	770.1114.01	Bearing unit for external milling rotor (Oekosem VI – 4R750)
	**007**	9002698	770.1746.00	Left milling cutter
	**008**	9002696	770.1745.00	Right milling cutter

Replacement Components

Picture	Item No.	Article number	Drawing number	designation
	**009**	93599057	773.3034.00	Milling box protection – Polyamide (Oekosem VI – 4R750)
	**010**	9008985	–	Lower link pin Category 3
	**011**	9018393	–	Top link pin Category 3
	**012**	93599056	773.9197.00	Compression spring for damping unit (Oekosem VI – 4R750)
	**013**	93599055	999.2505.00	Tension spring – folding locking mechanism (Oekosem VI – 4R750)
	**014**	93599054	773.1401.00	Cultivator tine devoid of wings, featuring a hollow tube and funnel (Oekosem VI – 4R750)
	**015**	9017953	773.1400.00	Cultivator tines devoid of wings

Replacement Components

Picture	Item No.	Article number	Drawing number	designation
	**016**	9000639	771.1237.00	Wide scraper plate, 773.7743.00
	**017**	9017681	SIMA kit heat exchanger	Kit Thermometer for 2 Rotors
	**018**	9000031-360PS	SIMA exit wave	Gearbox output shaft (lower) for 360HP gearbox
	**019**	9018819	SIMA protective pot primary drive POS3	Protective casing for drive shaft
	**020**	9018858	SIMA pump drive shaft - POS8	Pump drive shaft for Oekosem 360PS cooling apparatus
	**021**	9018859	SIMA-Pumps small (HPLPA14 – Viton) - POS9	Small pump for Oekosem 360PS gearbox (HPLPA148-Viton)
	**022**	9018820	SIMA Kit Protection (3 pieces/set)	Bondioli complete set driveshaft guard for PTO
	**023**	–	773.1159.01	Wear strip, including screws and bushings.

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The dates are available on our website.

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