VARIOR 500

DIGGING TECHNOLOGY AND FERTILIZER APPLICATION FOR POTATOES

Varior 500 Potato Cultivator is technically and technologically designed for surface and subsurface cultivation of stems and furrows to improve soil retention ability to increase water infiltration from precipitation or irrigation and to create appropriate conditions for efficient use of nutrients from applied fertilizer to soil by plants. The crusher disturbs the use of star-shaped cylinders of the crust on the surface of the creatures at the onset of planting, creates or renews the ditches and dams in the non-leeled wake, buckles the congealed soil at the edges of the rail furrow that arises after repeated overflows of the technique and applies mineral fertilizers into the plant root zone. By using ultrasonic transducers that sense the position of the extreme double bosses relative to the central one, the hydraulic system of the machine receives instructions from the control unit to move the edge sections in such a way as to copy the inaccurate connection of the individual double basses produced by the two-row baler. The capacity of the fertilizer tank is 500 liters. Two patents are applied to Varior, one for the overall innovative machine design and the other for the original application of fertilizer to the roots of the tubers.

In the framework of the NAZV project QJ1510179, with the support of the Ministry of Agriculture, the P & L company, with the support of the Ministry of Agriculture and Forestry, co-investigators (VÚMOP, vvi Praha-Zbraslav, VÚRV, vvi Praha-Ruzyně - VŠ Jevíčko, ZD Krásná Hora nad Vltavou as, Hanácká zemědělská společnost Jevíčko, as) fertilization of potatoes.

VÝZKUMNÝ ÚSTAV BRAMBORÁŘSKÝ Havlíčkův Brod, s. r. o.

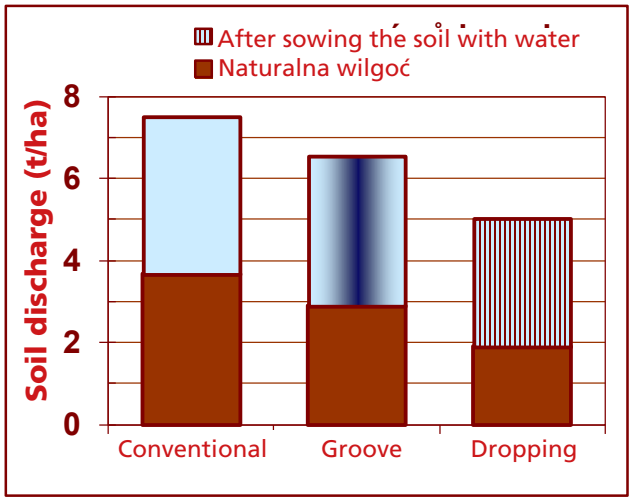
Výzkumný ústav meliorací a ochrany půdy, v.v.i.

Servis, za kterým stojí lidé

Verified soil protection technology for potato growers

VARIOR 500 cultivator coupled with P & L (Pitch, Punch) modulation technology together form the most effective option for reducing water erosion on sloping land. In addition, it increases the overall management of soil moisture, and also on plots where potatoes are so called „under irrigation".

The Varior 500 has original, copy-protected work tools for the application of fertilizer to non-leachate furrows. The other functional parts for loosening the roots and treads work to increase the water retention of precipitation in the rocks and wafers, thus creating a preferential zone for water absorption near the roots of the plants. The working tools are spring-proof for damage to the stones. This system not only protects the machine, but also serves to adjust the compressive force for different crevices and different soil conditions. The supporting center frame consists of a lattice structure on which the fertilizer tank and the hydraulic folding arms with the extreme work units are mounted. There is also a control unit for automatic guidance of the edge sections in the correct working position. For manual adjustment of the machine, there is a time limit that can be set from the operator's point of view.



Influence of grooving on the erosion effect. In the case of „Chubbek" and „Cropping", the rocks were modified by a P & L robot modulator, which created at the top of the grooves the grooves with a slope into the non-leech furrow for greater rainfall. VARIOR 500 technology was used in VARIOR 500. (Tower, 2012-15)

Three images illustrate the gentle perforation of the top of the rocks, the restoration of the ditches and the dams in the unruly wake, and the pitting of the heel feet in the railroad wagon.

SPECIFICATIONS	MODEL
	VARIOR 500
Length	2800 mm
Working width	5920 mm
Shipping width	3000 mm
Shipping height	3000 mm
Operating weight	3050 kg
Weight*	1410–2050 kg
Dry weight without fillings and tanks	1100 kg
Tank volume	500 l

** It depends on the used tank.*