



# Mulcher to hop garden

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### Abstract

Innovation of horizontal mulch machine for hop gardens is based on the possibility to adjust working swath and throw of plant mass into the sides of the rows with the help of specially bent knives. The machine is suitable for the surface mowing and mulching of grass, weeds, natural seeding of shrubs and trees till the diameter of 1 cm not only in hop gardens but also in vineyards including crush of bines.

### Keywords

Hop, mulcher, mulch machine, green manure, grassing, integrated production

### Description

Machinery for side throw of mulch interim crop in the space between rows with variable working width consists of three sections: central, right and left. Supporting frame with the main gearbox, which shifts rotating moment from shaft outlet of the tractor to the right and left sections, forms the central section. Two diagonal brackets are placed at the central section. They support right and left section. The both sections are secured with a socket and fixing screws for adjustment of the working width. Terminal gearboxes are put on the adjustable right and left sections. They shift the motion from the main gearbox to the rotors.

Rectifiers have been installed in the front, central, right and left sections to throw mulch mass. With their help plant material is put aside into the outlets placed on the right and left sections.

Working width of this machine (2050 mm – 2200 mm – 2300 mm) can be set up and in this way we are able to regulate the swath of mulching according to the width of rows in the hop garden. This operation is carried out with the help of fix screws so as to shift right and left sections on the demanded width. Fix screws also serve to fix right and left sections back to the diagonal supports. Better grinding and throwing of mulch mass through the outlets are provided with the help of bent knives.

Technical certification of the machine is following: working machine supported, horizontal mulch machine, trademark: OSTRATICKÝ, type HM4/HM5. Technically is the machine identical with the type authorized by Ministry of Transport (no. S-0243-03-02). Weight of the machine is 590 kg; maximal transport speed of all the machine alternatives is 20 kilometers per hour.

Three-point tow is placed in the front part of the carrying part as a pendulum. Chains connect it with the rear carrying profile. Pendular suspension of the third point is necessary for optimal terrain tracing.

### Price

The price in CZ: 168.000 CZK (6.500 EUR; 8.400 USD; 5.400 GBP; 67.200 UAH; 264.000 RUB)

### Acknowledgement

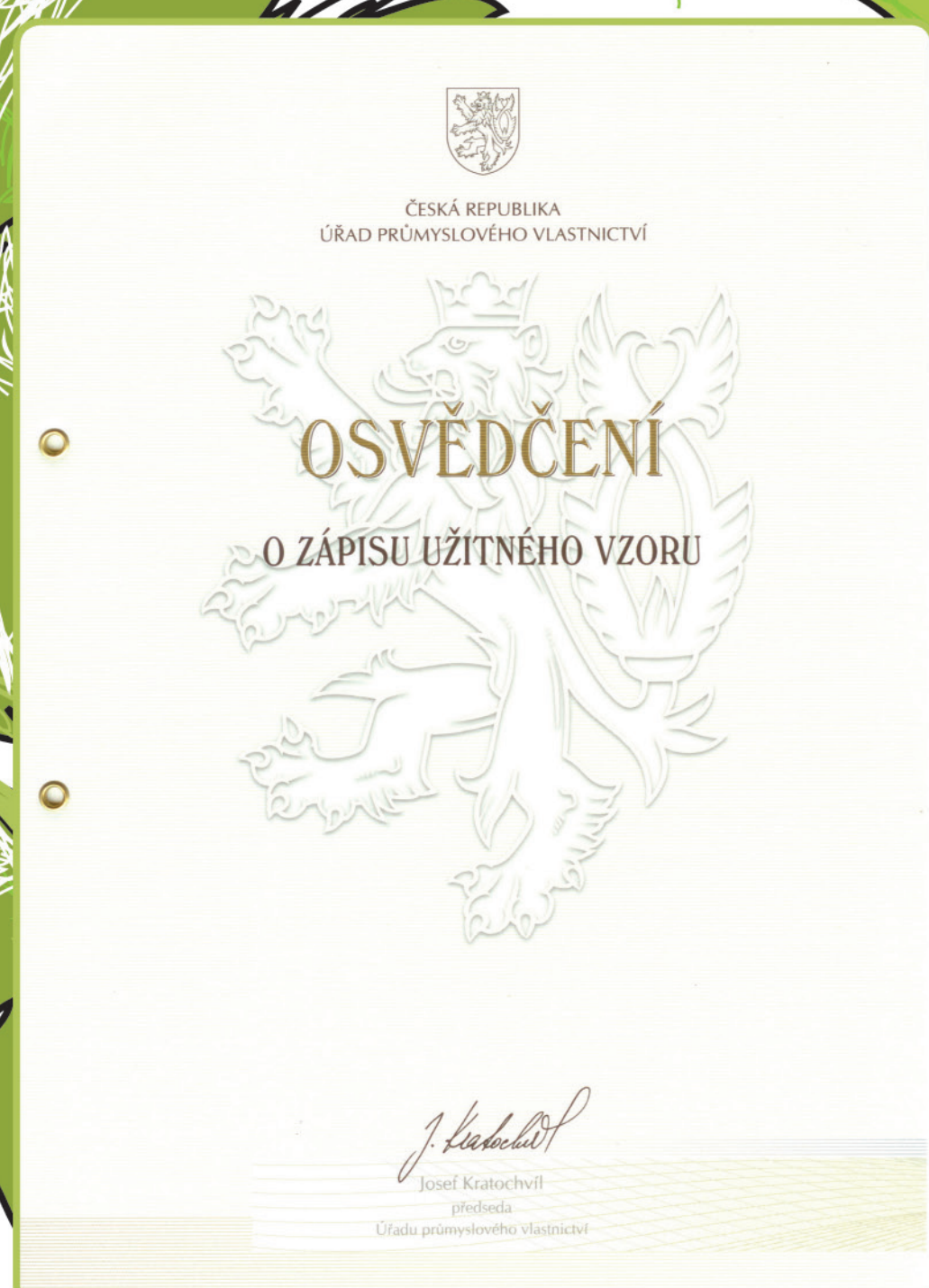
This machine is a result of our working activities within research project NAZV QH81049: "Integrated system of hop growing" (2008-2012) with the financial support from Czech Ministry of Agriculture.



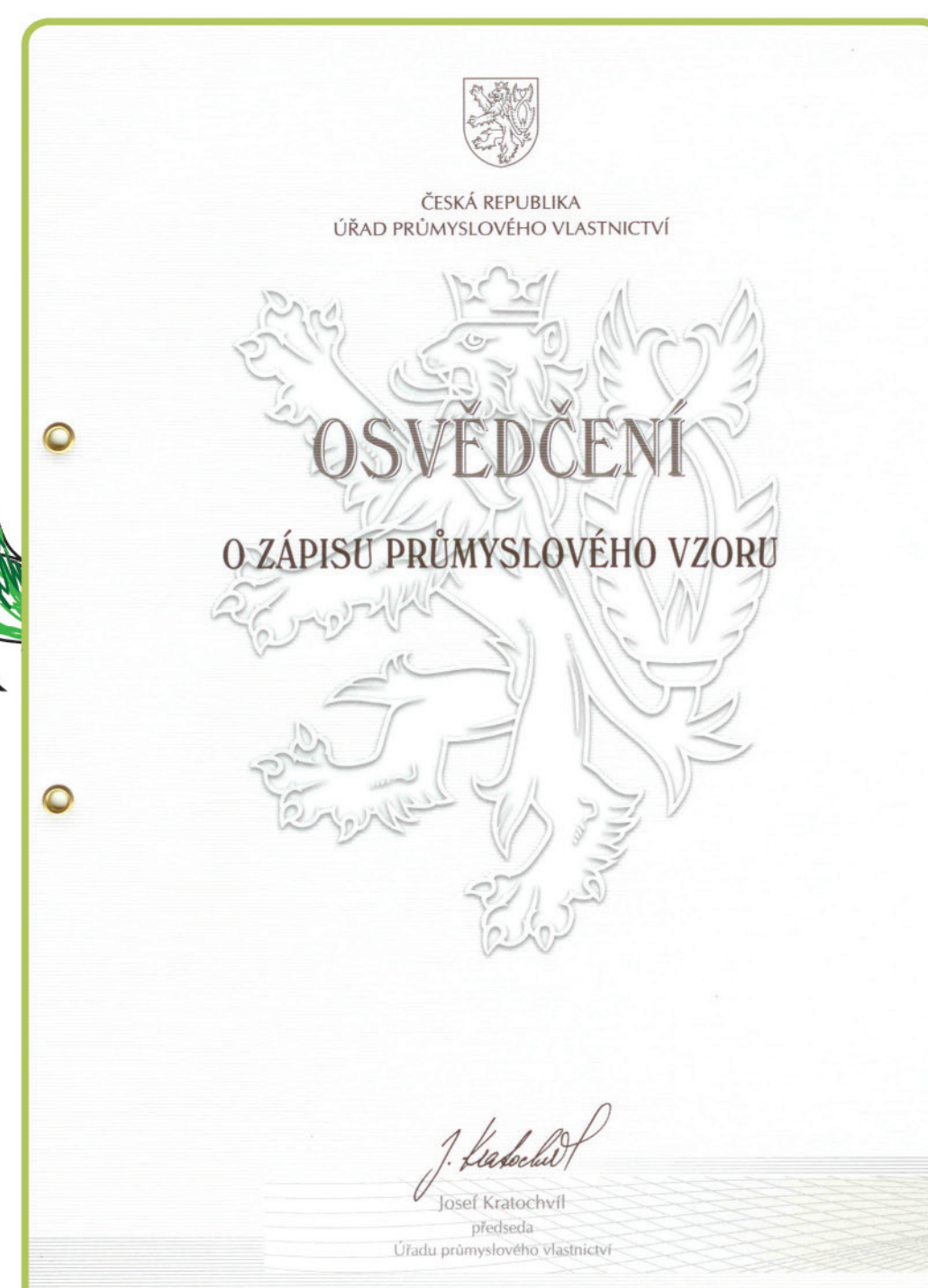
Working width: 205 cm – 220 cm – 230 cm (6,73 ft – 7,22 ft – 7,55 ft)



Throw of plant mass into the sides of the rows



Utility Model Protection  
(in 2012 registered by Industrial Property Office CZ)



Industrial Design Protection  
(in 2012 registered by Industrial Property Office CZ)



Mulch machine  
in low trellis



Presentation for Czech hop growers

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