

## Kemper receives Agritechnica Gold Medal



### Corn borer elimination already at harvesting

The corn borer has become a significant problem in all important corn cultivation regions. And the issue is on the rise.

According to estimates of the Food and Agriculture Organisation of the United Nations (FAO), the borer caterpillar destroy four percent of corn harvests globally, corresponding to the food requirement of 60 million people.

The borer lays eggs on the underside of the fodder plant. Caterpillars then develop on the plants. The borer larvae eat down the inside of the stem of the still young corn plant. The caterpillars then overwinter inside the remaining corn stems in the field.

The damage the caterpillars cause restricts the water and nutrient supply of the corn plants. The stem is hollowed out and can snap off easily. This can result in serious harvest losses, fusarium and other diseases, like common corn smut.

Even in subsequent crops, wheat, for example, fusarium can lead to yield losses and the risk of increased mycotoxin contamination, which can significantly impair quality.

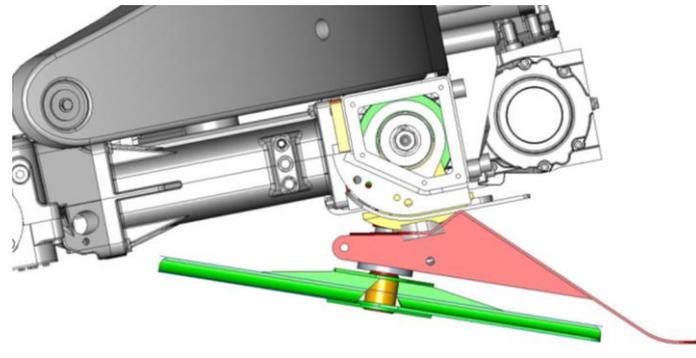
The loss of yield can be up to 50%. Serious loss of harvest is the result. So far, the only options to control the problem are insecticides and biological agents. However, their use is technologically very demanding, since special machinery is required. Seeding genetically modified corn is controversial in many European countries or not allowed at all.

Mulching the corn stubble is a common version of corn borer control; however, stubble pressed down by the forage harvester chain cannot be reached.

Kemper has developed "The Stalkbuster!" This ground breaking solution allows for controlling the corn borer without plant protection agents.

The Stalkbuster is integrated into the base frame of the rotary crop header. The intelligent development of a special flail breaks up every row of stubble individually before the wheels of the self-propelled forage harvester can flatten the stubble.

For every row the Stalkbuster consists of a swinging gearbox with integrated ratchet clutch to protect the specially shaped Buster flail. The intensive destruction of the stubble eliminates the habitat for the corn borer larva in the stems.



The special swinging gearbox permits optimum ground adjustment for every single row. A pneumatic pressure system provides for additional soft tracking of ground contours. The flail has been manufactured from highly wear-resistant material, guaranteeing a long service life. If necessary, it can be quickly replaced without special tools due to the polygon gearing. A freewheel ensures a soft runout off the buster flail.

The working result of the Stalkbuster is impressive: The stubble is smashed into small pieces down to the ground, destroying the overwintering habitat for the corn borer and reducing the fusarium risk. Furthermore, there are no obstacles from bulky harvest residue for the following tillage operations.



The power consumption of the Stalkbuster is surprisingly low. With its direct drive and optimum ground adjustment of the individual units no more than 4 horsepower is required per row.

If the SPFH needs to be reversed, The Stalkbuster units are automatically lifted when the drive lever is pulled into reverse. This avoids damage.

The total economical advantage is around 84€ per hectare compared to best existing solution (mulching) in areas affected by the corn borer, plus additional environmental & economic benefits.

Kemper - pure efficiency and innovation. For a healthy and high yield corn cultivation.