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History of the Development of Wood chipper technology at the Institute of Agricultural Engineering

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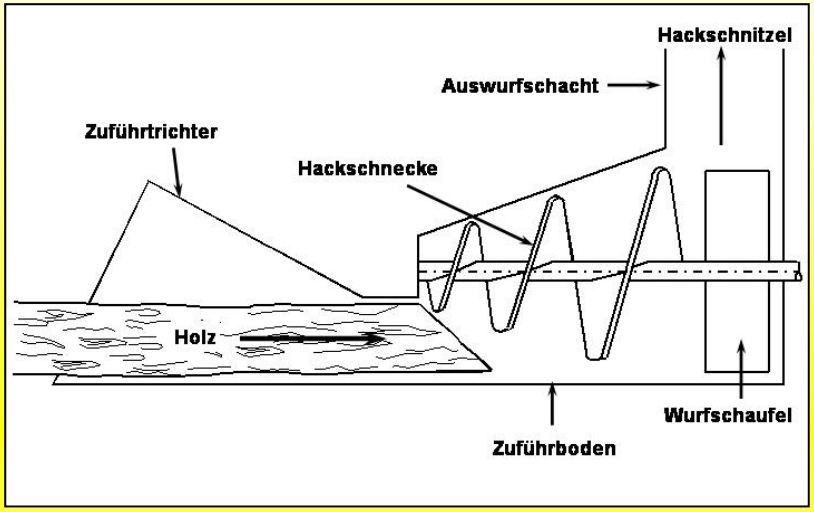
Spiral Chipper Principle



- conical shaped spiral chipper with sharpened windings
- (axial-parallel) feeding system with stop unit as counter bearing
- automatical feeding by screw principle
- Windings are chopping out the wood material
- Size of wood chips: 10- 150 mm
- close size distribution of wood chips
- low specific energy input

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„Göttinger Wood Chipper“

1.Prototyp of the „Göttinger Gehölzmähhäcksler“

- development started in the beginning of the 90th for harvesting short roation plantages
- single row spiral chipper for attachment to a tractor
- saw blade with vertical working spiral chipper on top
- goal: coarse wood pieces
- development suspended at the end of the 90th

Secondary Forst Wood Chipper „Tritucap“

- goal: avoiding slash and burn
- double-rotor- spiral chipper for fire free land preparation in tropical agricultural systems
- wide spreading of the wood chips as mulching material
- reduction of nutrient losses
- erosion protection
- assurance of sustainability
- low workload

Landscape Conservation Chipper: Tritucap ‚GMH 05

- DBU- Project „fully mechanized landscape management in nature reserves and Natura 2000 sites“
  - fully mechanized bush and tree encroachment from open areas worthy of protection.
  - economically efficient and gentle for environment
  - Collection of the wood chips for energetic or material purposes
- despite many changes on the machines both concepts were rather inapplicable

Landscape Conservation Chipper : GMH 06

Change of the technical concept:

- horizontal spiral chipper
- active feeding
- working width over the whole broadness of the tractor

Two different trends:

- landscape conservation
- harvest of short rotations plantages (christmas trees, fruit tree plantages)

Future prospects

- continuation of development of the Göttinger Wood Chipper for the harvest of short rotation plantages
- further development of the Landscape Conservation Chipper for different areas of application (roadsides, „Knick“ areas, waste land etc.)
- design of new harvest concepts on basis of spiral chippers:
  - pickup-Chipper
  - extension conducted Chipper
  - self-propelling chipper
  - .....

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Cooperation of sciences and business

- Development, construktion and application since 2004 (DBU- project) through cooperation of

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Schmidt GmbH
Hallenbau - Stahlbau - Maschinenbau

LOHNBETRIEB HORST SCHMIDT

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Thank you for your interest!