Fully mechanised landscape conservation in nature reserves and Natura 2000 sites

Increasing woody vegetation encroachment in protected areas

The successive encroachment of open habitats (neglected grasslands, heaths, etc.) by woody vegetation due to inadequate or lack of cultivation is a core problem for the protection of both species and biotopes in central Europe.

Effects of woody encroachment:

- Loss of flora and fauna diversity
- Changes in the typical landscape
- Recurring high costs of bush clearance
- Breach of the statutory conservation requirements (e.g. Habitats Regulations)

Aims of the Project

Development of a fully mechanised maintenance process with the following prerequisites:

- Inexpensive processing and salvage of woody material
- Methods that protect both flora and fauna
- Little or no soil contamination
- Improvement of working conditions and on-the-job safety
- No effects on the soil
- Determination of possible uses of the salvaged material for energetic purposes

The Section of Agricultural Engineering is responsible for the development of the technical part of the project.

Results of the technical part of the project

Göttingen Landscape Conservation Chipper

- Self-cutting spiral chipper
- Tractor attachment with a power trade-off rating of at least 130 kW
- Material diameter capacity 12 cm
- Cutting, delivery, chipping and loading in one working cycle
- Other possible uses e.g.
  - Harvesting of short-rotation plantations
  - Construction of secondary logging roads
  - Clearance of Xmas tree and market gardening crops

Other co-operation partners:

- AGRA-TEG Agrar- und Umwelttechnik GmbH Göttingen
- Abteilung Graslandwirtschaft der Universität Göttingen
- Fachdienst Stadtwald, Stadt Göttingen
- Fachdienst Umwelt, Stadt Göttingen
- Schmidt GmbH Hallenbau-Stahlbau-Maschinenbau, Uchte
- Horst Schmidt Landwirtschaftliches Lohnunternehmen, Uchte
- UBS Dr. Meineke Umweltbiologische Studien, Ebergötzen

Contact: Dr. Jens-Karl Wegener • Georg-August University Göttingen • Department of Crop Sciences • Section of Agricultural Engineering • Gutenbergstr. 33 • 37075 Göttingen • Germany • Tel. +49 (0) 5 51 / 39 – 55 92 Fax. +49 (0) 5 51 / 39 - 55 95 • E-Mail: jwegene@uni-goettingen.de • www.agrartechnik.uni-goettingen.de