Increasing the efficiency of cattail establishment in terms of labor time requirements.

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Target

Initial situation

• Lack of practical experience



Target

• Creation of a data base



Lack of predictability



Evaluation and optimization of workflows

Increase of predictability and efficiency

Results on the establishment of cattail in the practical trial (Typha angustifolia, Typha latifolia)

In the practical trial (approx. 8 ha) of the joint project "Putting paludiculture into practice: Integration – Management – Cultivation (Paludi-PRIMA), cattails were established using three methods:



Planting using two RPKU planting machines (forestry)

- Technology adapted to rough terrain
- High labor requirement (four people per machine)
- Low area output (one row per machine)
- Malfunctions (contamination of the planting technique)



Seeding by hand

- No technology required
- Low area output
- Moderate labor requirement (one person per row)





Seeding by drone

- Not yet reached market maturity
- High area output and high precision
- No impact on the area
- Low labor requirement (two people per area)
- Seeding has a lower labor and time requirement than planting.
- Planting can be expected to have higher establishment success than seeding.
- There is a need to investigate the suitability of these methods considering different site conditions.

Outlook

- The use of specialized technology can reduce labor time and manpower requirements compared to the use of adapted technology.
- For many paludiculture methods, specialized technology does not yet exist or has not yet reached market maturity.
- Due to the low proportion of peatland in Germany, the development of special technology for paludiculture processes is not profitable. In order to enable the development of specialized technology for paludiculture processes, funding measures would have to be developed.

Konta

• Working time measurements for further process steps of cattail cultivation are planned for the next two years.



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