

## NEW MECHANISATION LINES FOR CEREAL PRODUCTION ON STEEP LANDS

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### DIVERSIFYING MOUNTAIN AGRICULTURE

We seek to develop radical innovations for cereal cultivation and processing in extreme mountain contexts, on land with high slopes (up to 80%). Here cereal cultivation is usually excluded from any form of mechanization, resulting in abandonment of terrains.

Project Brotweg was set up for the need of new development models for small mountain agriculture, complementary to the currently prevailing animal farming systems. Considerable advantages in terms of reduced labor, annual workload, investments and environmental impact may be achieved.

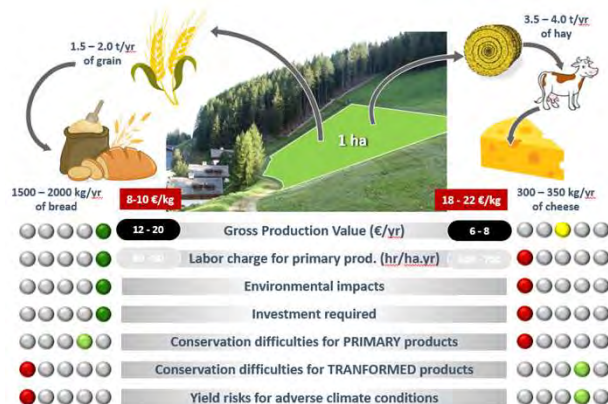


Figure 1: Comparison of local value chains: Hay-milk-cheese and cereal-flour-bread

### ACTIVITIES

- Realization of tractor implement prototypes for minimal preparatory tillage and stripper header harvesting
- Field yield estimation through spectrographic surveys
- Post-harvest facilities set up in historic buildings, with bread-making and direct marketing



Figure 2: The Geier TLY-85 with stripper header implement prototype

### PRELIMINARY RESULTS

Field tests with implement prototypes showed positive results. We monitored satisfactory crop yields. Stripper header losses were acceptable, but improvement is needed.

The mechanization of cereal production in steep mountain areas is possible and shows promising results. However, machineries, technologies and their proper use require precise local adjustment and must become more affordable.

The approach of Brotweg has then continued in the project **CereAlp (Interreg IT-CH)**.

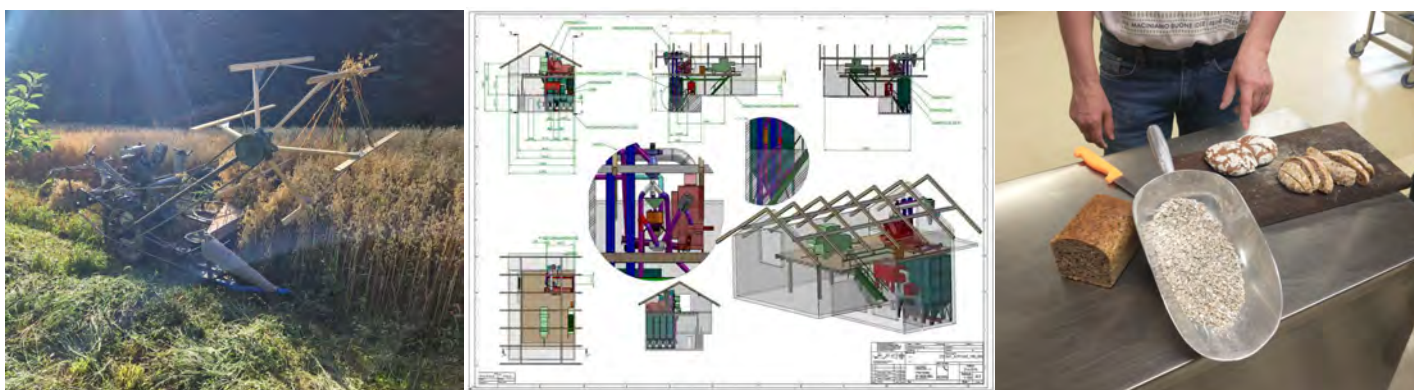


Figure 3: BCS reaper-binder on trial; Design drawing for integrating a seed storage facility into existing agricultural buildings; Examples of local cereal products (from left)