



# Case study 13 : Why is lentil (*Lens culinaris*) cultivation a story of success in south-west Germany?

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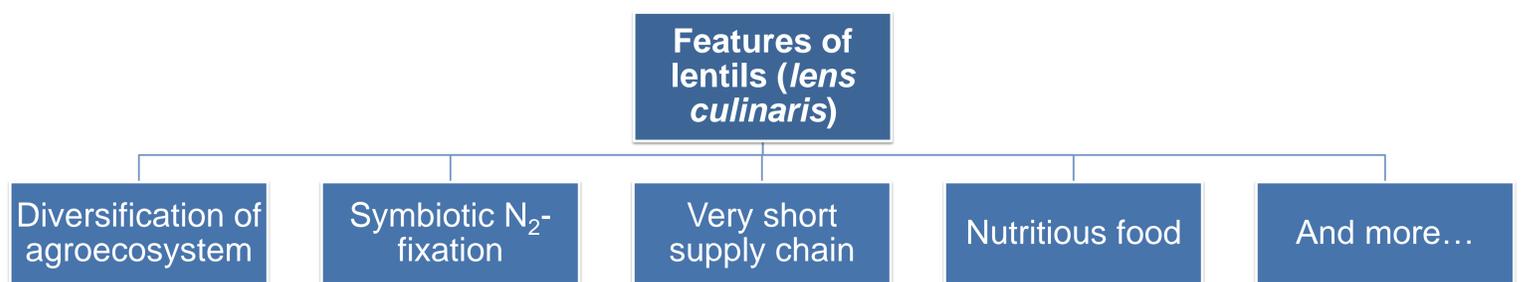


Fig. 1: Lentils almost ready to harvest (trial, reason for sticks and no companion crops)

## Background

### Lentil production in south-west Germany

- Lentil was a traditional crop in Germany, however since the 1950s it is no longer commonly produced
- In 1985, a farmer from the Swabian Alb restarted growing lentils
- Following years: The farmer multiplied seeds, reintroduced old local varieties which survived in a gene bank in St. Petersburg, tested cultivation techniques, and founded an **organic producer group** with other farmers
- Major amounts of lentil are produced by members of that specific producer group (ca. 90 farmers)
- Conventional farmers are also producing lentils again
- Research at University of Hohenheim: since 2008 several field trials



## Special info about lentil cultivation in Germany

- ❖ Risk of lodging
- ❖ Lentil needs to be grown in mixed cropping with a companion crop!
  - Common companion crops: barley, oats, camelina
  - Traits needed for a suitable companion crop: same time of sowing, ripening and harvesting, suitability for easy post-harvest separation, market demand of both crops
  - Seeding ratio and companion crop species have to be well adjusted to avoid competition with lentil

## Objectives of the case study

- Determination of the status quo of lentil cultivation in Baden-Württemberg (south-west Germany)
- Identification of agronomic factors which contribute to the success of lentil cultivation in south-west Germany
- Identification of farmers' motivation and obstacles regarding cultivation and marketing
- Illustration of new approaches which can help to stabilize, optimize and expand the lentil cultivation in Europe

## Methodology

### 1. Questionnaires

- Data collection regarding:
  - Location
  - Cultivation (e.g. yield, pest management)
  - Utilization and marketing of the lentil (food, market channel etc.)
  - Varieties, tillage, sowing and harvesting time, Analyses by using descriptive statistic

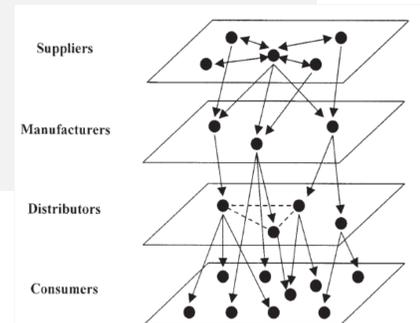
### 2. Semi-structured interviews

- Focus on personal motivation and obstacles
  - Decision process
  - Present cultivation
  - Future development
- Transcription and qualitative content analysis

### 3. Netchain analysis

- Netchain = set of networks as a combination of vertical supply chain networks and horizontal ties between actors linked to a specific part of the value chain (Fig. 2)
- Focus on producers and their direct and indirect connections to other actors
- Composition of a netchain for lentils in south-west Germany

Fig. 2: Illustration of a general netchain (Lazzarini et al. 2001)



Lazzarini, S.; Chaddad, F.; Cook, M. (2001): Integrating supply chain and network analyses. The study of netchains. In: Journal on Chain and Network Science 1 (1), pp 7–22. DOI: 10.3920/JCNS2001.x002.

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 Transition paths to sustainable legume-based systems in Europe (TRUE) has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No. 727973.



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