



Problem-based learning

Project for planning of conversion or optimisation of existing farms



Recruitment of stakeholders

(1) Preferably in a reasonable distance to the faculty (50 to 100 km)

(2) In special cases,

(a) No positive response under (1)

(b) Personal demand by a group member

[planning for the own future as responsible farm manager]

long distance addresses possible



Recruitment of students

- **Free choice of students of the 3rd year for a big project (= 2 semesters)**
- **Preferably groups between 8 and 15 persons**
- **Guided by teaching staff (professor or docent or PhD student)**

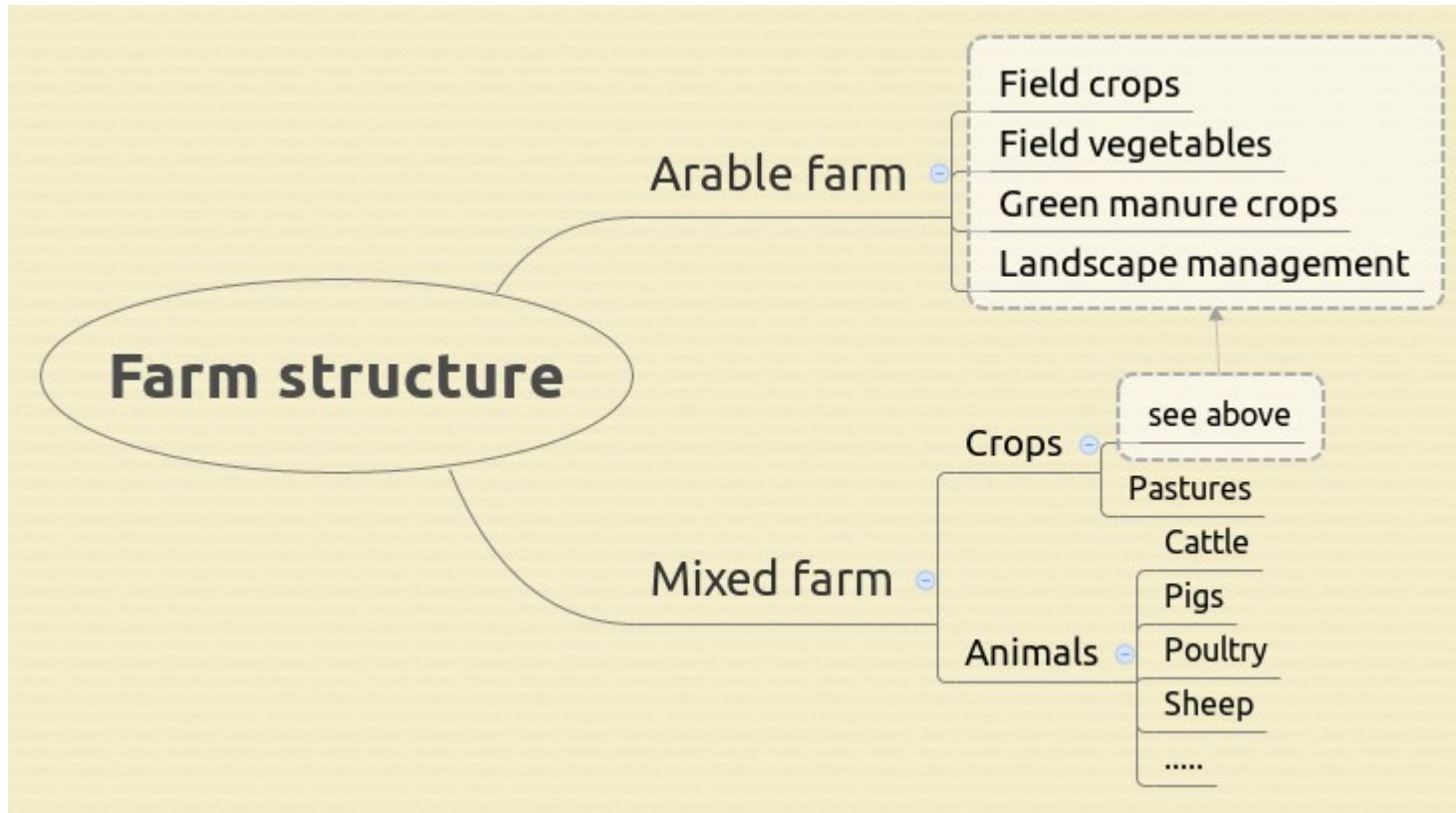



Peculiarity of such a project work >>> **Team work**

- Relying on the prepared sections (elaborated data) of other group members
- Being accurate in time, quality and quantity of agreed tasks
- Developing the right communication skills within the group and to external actors
- Becoming stress resistant in times of increasing labour
- Recognizing leadership skills in case of need
- Being motivated and motivating to other group members



Potential structure of farms





Road map of conversion planning

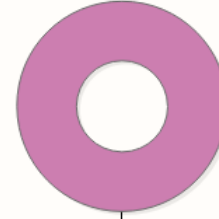


Semester 1

- **Preparation of farm visit No1 (Role of persons, itinerary of questions, what we need to know, which tools must be available during the visit, etc.)**
- **Elaboration of the present status of the farm** (Buildings, machines, animals, crops, working team, economy, marketing)
- **SWOT analysis**
- **Wishes & expectations of the farmer**

Useful tools

- **Useful tools for the work**
- **Repro** = programme for nutrient and humus balances
- **Replan** = programme for economic plannings
- Programme for the calculation of **fodder ratios**
- **Drawing programmes** for drafts of buildings, barns or other installations
- **Cloud computing** for the common access to documents
- Persons which are familiar with MS Word & Excel or equivalent programmes

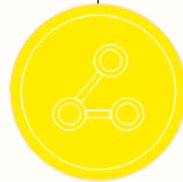


Semester 2 Planning period

- **Crop husbandry**
- **(Animal husbandry)**
- **(On farm processing)**
- **(Direct marketing)**
- **(Other use of buildings)**
- **Economic situation**
- **Market channels**
- **Report about present & future situation of the farm**
- **Presentation of results, including the co-referate of the invited farmer**

Working structure

- Several visits of the farm, if needed as a week-end event
- Regular meetings with & without supervising person
- Working individually or in sub-groups for the stepwise achievement of results
- practical issues:
 - (a) offer for soil analyses, spade diagnoses, feed analyses
 - (b) concrete plannings for reconstructions of barns or farm shop facilities if it is in line with the common aim of the project



Universität Kassel – Fachbereich 11

Ökologische Agrarwissenschaften

Bericht zur Betriebsoptimierung zu dem Thema:

„Auf trockenem Fuße in die Zukunft?“

Kooperations- und Optimierungsplanung
zweier ökologischer Milchviehbetriebe



Arbeit im Modul H63 „Betriebsumstellung und -optimierung“
WS2015 & SS2016
Betreuer: Dr. Christian Krutzinna

University of Kassel – Department 11

Organic Agricultural Sciences

Report of farm optimisation:

„With dry feet towards the future?“

Planning for the cooperation & optimisation
of two organic milk producing farms



Work in Module H63 „Farm conversion & optimisation“
WS2015 & SS2016
Supervisor: Dr. Christian Krutzinna

Conclusions for the planning of The cooperation of two milk producing farms

Plan 1 >> Technically & economically feasible,
but...

Plan 2 >> less
economy-based

- **Considerable risks** due to dominant income by one product
- **High dependence** on stable & adequate milk prices
- Rebuilding of a common barn dependent on farmers' ability to convince the governmental landlord **to share costs** for investments and to enable attractive credit conditions
- As preconditions for sufficient feed and good prices main focus should be given to
 - (a) **animal health,**
 - (b) **animal feeding according to needs,**
 - (c) **feed of high quality**

- Cooperation provides better distribution of workload & potential compensation of missing hours i.e. holidays, illness, etc.
- the challenge of cooperation
 - (a) development & maintenance of inter-human relations
 - (b) distances between the farms and unavoidable additional driving time

- Integration of
 - More organic concepts
 - Sustainability issues
 - Ethical considerations

**Erasmus
Plus for
Organic
Sector**



Problem-based learning

Examples from University of Kassel

Thanks for your interest

