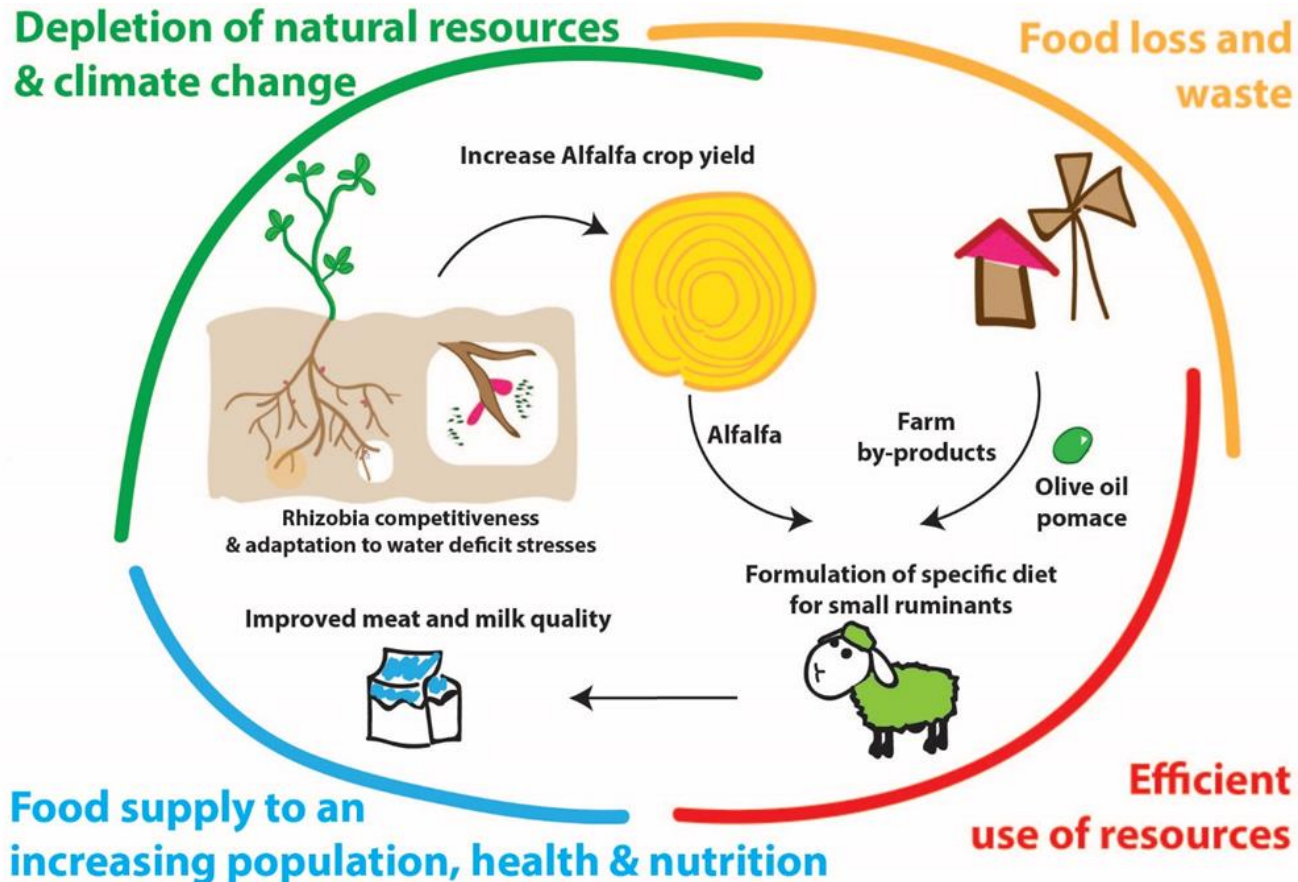
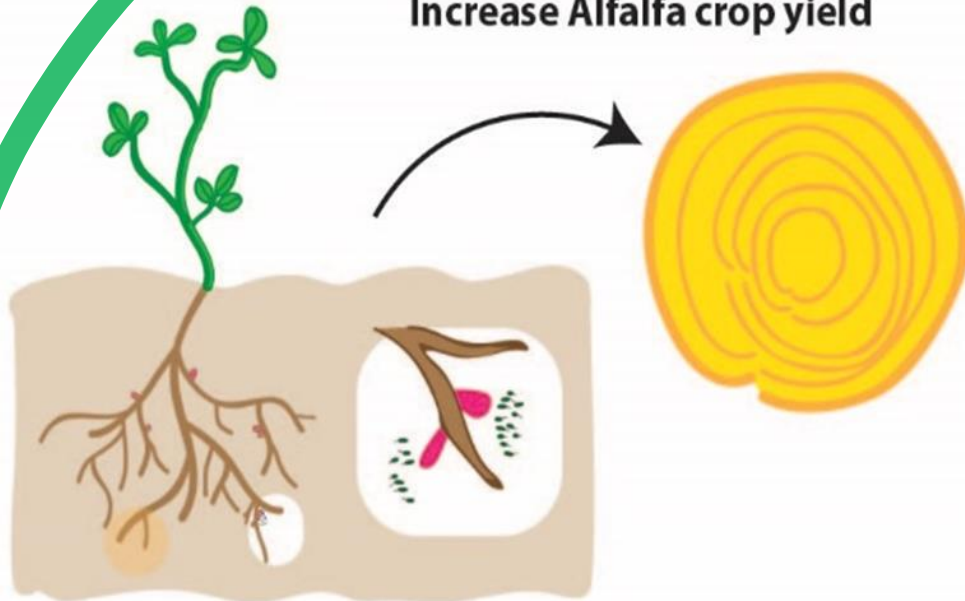


# Alfalfa for sustainable Livestock farming systems: Improve alfalfa - rhizobia symbiosis and New feeding strategy based on ecological leftovers



### Increase Alfalfa crop yield

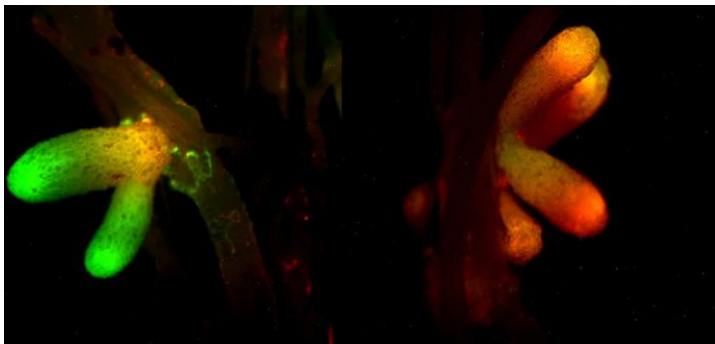


**Rhizobia competitiveness  
& adaptation to water deficit stresses**

Selection of the best *Rhizobium* natural strains to be used as **Elite inoculants** to improve alfalfa yield

Identification of **genomic features related to competitiveness** of *Rhizobium* strains in the rhizosphere

Selection of *Rhizobium* strains adapted to **stress conditions** (e.g. high salt concentration)



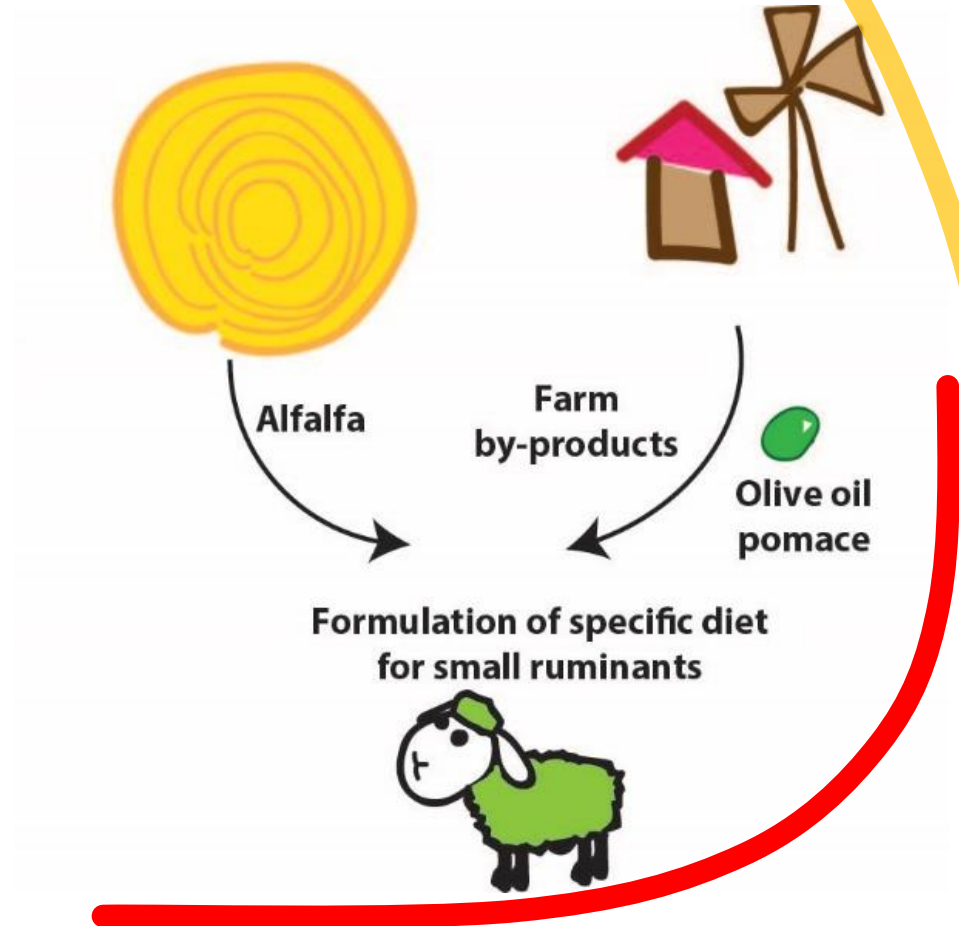
Development of a **feeding strategy** for livestock based on the principle of **ecological leftovers** by the reuse and the recycle of agro-food byproducts (olive oil pomace)



Formulation of specific sheep diets using the optimal combination of alfalfa in combination with farm organic by-products



Evaluation of experimental diets (*in vitro* and *in vivo*)



## Improved meat and milk quality



**Dissemination & communication plans (DEP) are inextricably linked to communication, to stakeholder engagement activities and to the exploitation of the results.**

DEP will be developed focusing on:

- reinforcing cooperation,
- young scientist training,
- technology transfer,
- stakeholder involvement.

## Partners

**UNIFI- Carlo Viti University of Florence –Italy**

**INRA- Khalid Azim INRA, Rabat - Morocco**

**UNIPI- Marcello Mele University of Pisa/Centro Ricerche Agro-ambientali-E. Avanzi» -Italy**

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# Thank for your attention

