

IMPROVING THE QUALITY OF PROTEIN EXTRACTED FROM GREEN BIOMASS

PROTEIN FROM GREEN BIOMASS

White clover

Red clover



Lucerne

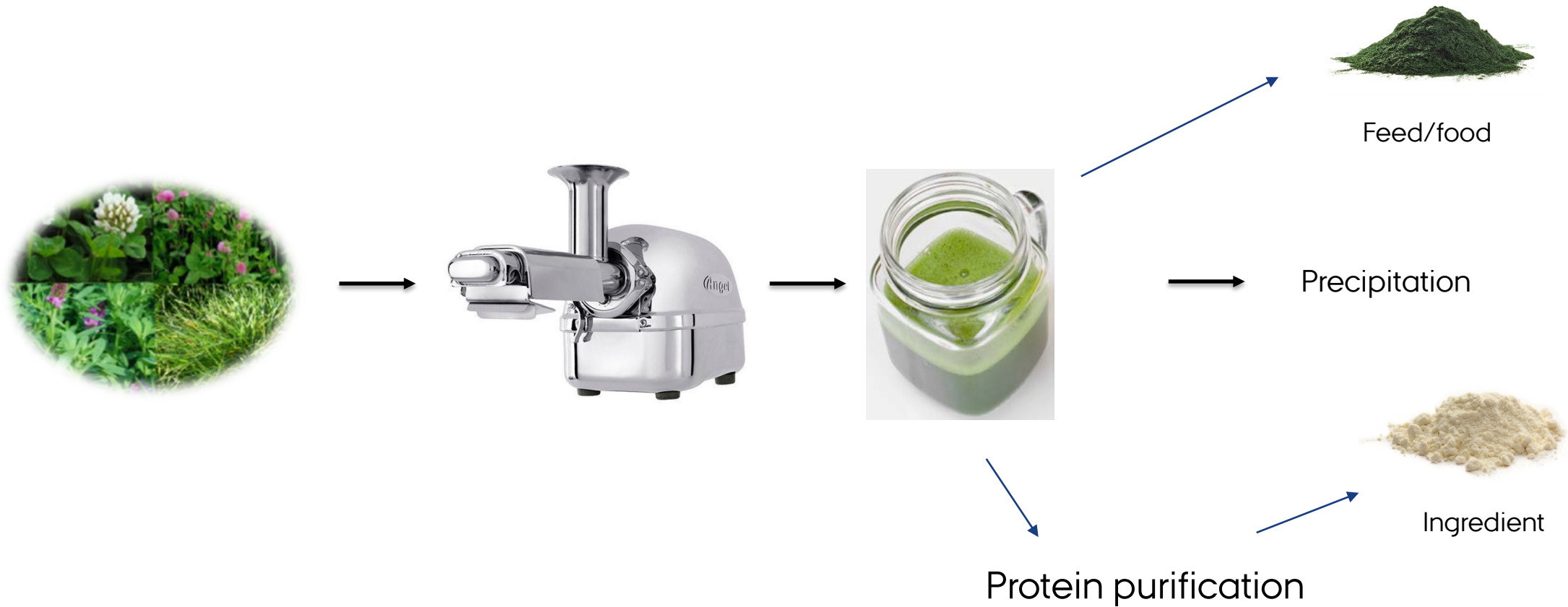
Ryegrass

- High protein yield per area
- Sustainable production
- Good amino acid composition

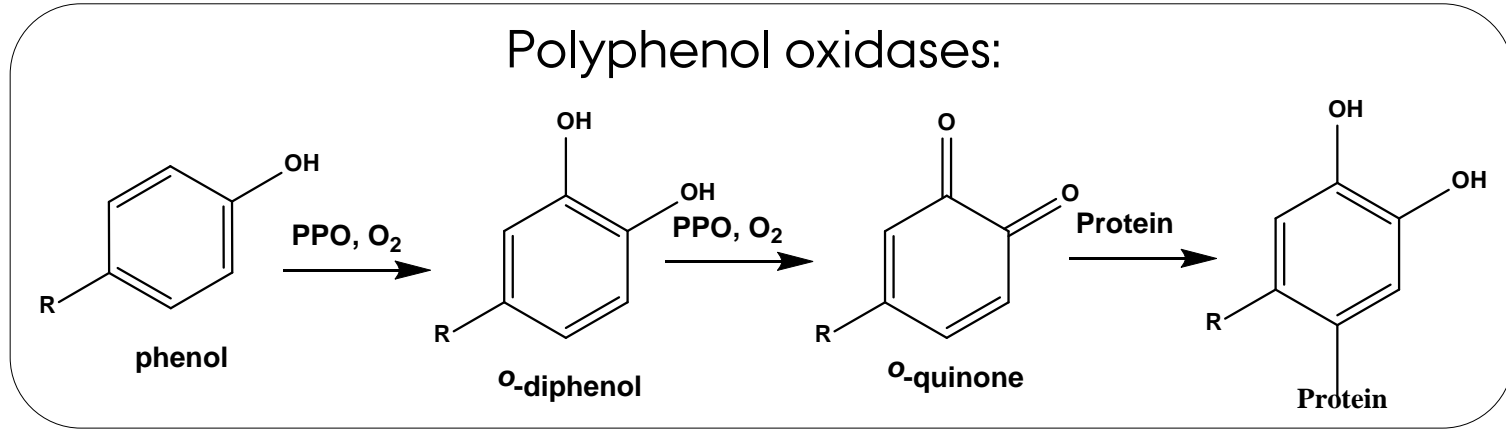
However,

- Protein needs to be extracted before monogastric consumption

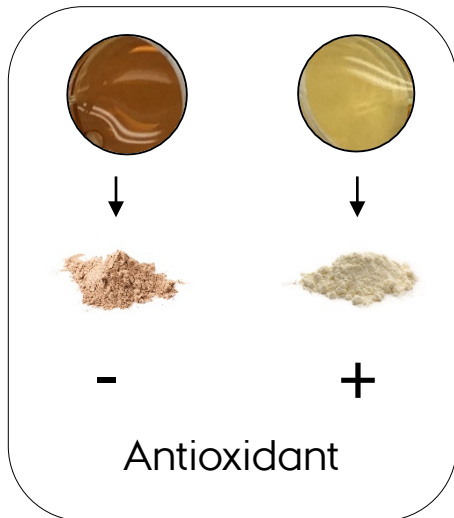
EXTRACTION OF PROTEIN



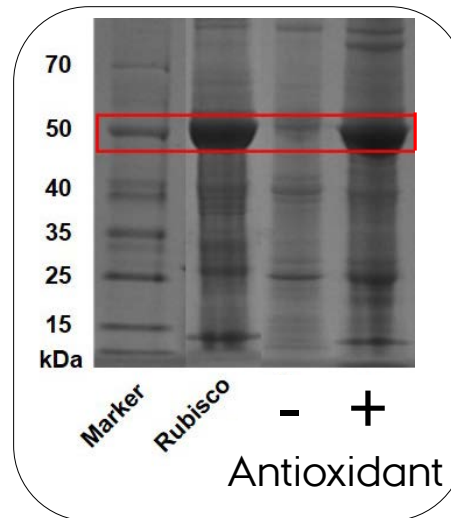
REDOX ENZYME ACTIVITY



Polymeric browning products



Protein crosslinking



Effect on protein quality

- Lower solubility
- Brown discoloration
- Lower amounts of essential amino acids
- Lower digestibility

IMPROVING THE PROTEIN QUALITY

Project aims

1. Investigating the mechanism behind the protein oxidation

- Differences between plants species
- Which enzymes are involved?

2. Minimizing the protein oxidation

- Antioxidant or inhibitor addition