

LegumePlus ESR 6: Agronomical studies

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Introduction

Previous experiments have shown that sainfoin lacks the strength to compete with weeds or accompanying grasses. Thus, frequent loss of sainfoin proportion in mixed swards is a common problem and optimisation of management techniques is required to aid establishment and consecutive growing of sainfoin. Additionally, the genetic and agronomic diversity of sainfoin has not yet been fully established in field trials.

Variability of sainfoin

Objectives

Improve knowledge on variability of sainfoin and establish water requirements and optimal cutting frequencies

Methodology

- Investigate 30 different sainfoin accessions for their agronomic potential and juvenile development
- Analyse for the different reactions to drought stress and compare it to other drought tolerant species
- Compare OV's reaction to different cutting regimes
- Potentially create NIRS digestibility curves for sainfoin accessions



Recommended Cooperation with:

- Breeding (DSP; ESR 5)
- NIRS (DALP; ESR 10)

Cultivation

Objectives

Establish and maintain high proportions of sainfoin in mixtures, as well as compare their performance against pure stands from both economic as well as environmental viewpoints.

Methodology

- Evaluate mixing partners and optimal mixing ratios for establishing durable grass-sainfoin mixtures
- Comprehend strategies which aid establishment
- Understand optimal management techniques, such as cutting frequencies
- Test performance of OV grown in monocultures and mixtures
- Examine whether mixtures exhibit better ecosystem services than monocultures



Recommended Cooperation with:

- Cultivation (NIAB; ESR 4)

The experiments will help understand beneficial and detrimental effects from management techniques on sainfoin cultivation and allow for higher productivity while maintaining or improving forage quality.