Hay Days: management of floodplain meadows for sustainable hay production

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Hay Days: management of floodplain meadows for sustainable hay production
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Floodplain meadows

These internationally threatened meadows depend on annual hay cutting and aftermath grazing to maintain their characteristic botanical diversity. Changes in agricultural methods and land use over the last century have led to the loss of 97% of our heritage wildflower meadows. This study investigates how agricultural production can be brought back into balance with biodiversity conservation through well-timed haymaking.

Hay making: nutrients removed
Haymaking before flowering removes most nutrients, preventing them from building up in the soil and ensuring a wide range of plant species can thrive.

Meadow Managers
Meadows would not be meadows without meadow managers. So this project began by seeking their views to inform the Redwood focus.

The questionnaire
Over 100 responses helped narrow down the Redwood focus to seasonal changes in yield and dietary minerals.

The interviews
A series of land manager interviews during 2021 is exploring the practical implications of this research and their daily decisions.

Nature Friendly Farming
Conservation and farming are often portrayed as opposing forces in the media and it became clear from the questionnaire that this divide is inaccurate and unhelpful.

Double cutting
One method to maximise yield and total nutrient removal is to take a double hay cut. The aim is to take two harvests during the active growth periods in the early summer and autumn, avoiding the summer dormant period.

Hay yield and minerals
Floodplain meadows are a naturally fertile farm resource.

Cutting date
Peak yield and peak nutrient content do not occur at the same time, so land managers need to find the right balance. Mineral data for this study is currently being analysed.

Agri-environment schemes often restrict hay cutting dates until after mid-July and this can cause conflict between agricultural and biodiversity management goals.

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Cut 1 vs. Cut 2

Growth and yield on floodplain meadows

- Yield and nutrient content can vary significantly between two harvests.
- Careful planning and timing are crucial to maximising yield and nutrient removal.
- Double cutting can help achieve both goals, but requires careful consideration.

Cut 2

- Yield: 1.2
- Nutrient content: 145 g/kg

Cut 1

- Yield: 0.8
- Nutrient content: 165 g/kg

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