

# Meadows and Grasslands







## Why our pollinators are in so much trouble?





- 2 species of bumblebee extinct since 1940 with many more in serious decline and 6 listed as priority.
- 60% of UK Butterfly species have declined in 10 years
- Even more common 'garden butterflies' declined by 24% in the last 10 years
- Why?
- 97% loss of meadows
- Pesticides
- Other habitat loss

#### Types of meadow





Annual meadow

Perennial Meadow





 Species Rich Grassland

Exotics

### Selecting a meadow style





- Where? Any special designations?
- What is the priority- conservation vs aesthetics
- How quickly do you need results?
- How much ongoing maintenance can you cope with?
- What are the current site conditions?







- Fertility- How much nutrient of plant food is in the soil
- Different plants have different needs
- For ALL meadows we want low fertility
- Many wildflowers will grow very well in fertile soil
- Most aggressive weeds will not grow well on poor soil.

#### Establishing meadows





- Assess the site- what weeds are currently there if any, full sun or shade, soil tet
- Remove unwanted vegetation
- Common methods- hand digging/ spraying/ covering/ rotivate/ turf stripped
- Introduce initial wildflowers like yellow rattle (semi parasiticfeeds off grass roots)







- You could still have a weedy seed bank.
- Potential solutions- invert the soil, import a sandy or low nutrient mulch







Now you've addressed the weeds

Measure area and choose seed mix

Sow perennials in Sept or wet soils in April

Annuals in April

Mark the area, weigh the seed mix and mix with sand.







- Annual meadows- leave until Sept
- Perennial meadows- stopping initial flowering by slightly strimming a couple of times could help bulk them out
- Aiming for very little bare soil by the end of season one.
- Plug plants can be added at any point
- Spot weeding.







- Most cut from August or later depending on species.
- After cut needs raking to stop them rotting down and increasing fertility. Dead grass will form a 'thatch' stopping new seed setting.

#### Ongoing maintenance- Annual Meadows





- You will need to collect or buy more seed
- Because of later germination of annuals lots of opportunities for weeds to get in.
- In reality many annual meadows almost need starting from scratch each year.

## Ongoing maintenance- Perennial Meadows.





- Yearly rake and cut
- Might want to spot weed docks, nettles, etc
- Could fill with more seed or plug plants
- If grass begins to take over earlier cuts in April can set back the grass and give time for the flowers to grow (many grasses also provide valuable flower varieties)

#### Species Rich Grassland





- Easiest and cheapest method... if you're patient.
- Involves changing the mowing regime to a once year cut and rake
- Will start to reduce fertility, the grass will weaken leaving room for the flowers to move in.
- Over a period of years you can start to add sees, plugs, green hay, yellow rattle as your meadow develops.
- Would benefit from some interpretation/ community engagement.

#### Further research and reading



- Grassland | The Wildlife Trusts
- National Wildflower Centre | Eden Project
- <u>Plantlife</u>

Any questions?