

Regal Fritillary *Speyeria idalia*

Habitat Preference: Prairie obligate species

Threats:

- Loss of prairie habitat
 - Conversion of prairie to cultivated ground
 - Tree invasion: shade is detrimental to the success of this species
 - Conversion of pasture and hay fields to cultivated crop fields
- Invasion of non-native plants
- Haying at certain times of the year and over-grazing could limit available flowering plants used for food.
- Fragmentation could cause butterflies to travel long distance to find the particular plant species on which it feeds.
- Excessive fire use
- Overuse of pesticides. Many times in agricultural areas with heavy infestation of pest insects such as grasshoppers are aerially sprayed, this spraying has a direct negative impact on regal fritillaries.



Habitat Improvement Guidelines:

- Prairie preservation
- Reestablish grassland habitat. Violets are the only food source of caterpillars, specifically prairie violets and bird's foot violets. Adults feed on a wider variety of forb nectar. When creating a new seeding consider including forbs that bloom at different times throughout the summer to create a constant food source. New grassland establishment will help to create a buffer that will prevent pesticide drift. Viable populations probably need a minimum of 120-240 acres when prescribed burning will be the main source of management.
- Fall burnings will be very important to promote forb growth. Alternate between spring and fall burns. Early spring burns are better for the Regal Fritillary than late spring burns. Area should not be burned more than every 5 years. Regals may need four or more years to completely recover in an area that has been burned. Areas should be broken up into multiple burn units (minimum of 4) that are burned on a rotational basis to provide refuge for Regal Fritillaries. For regals it is a good idea to have years that have no burn activity within a given burn complex.
- Many grassland areas have extensive woody encroachment. When these areas become shaded with woody encroachment it becomes uninhabitable for regal fritillaries.
- These butterflies will not use an area that is regularly disturbed. Regular annual haying is not a compatible use for regal fritillary habitat. Haying every 3 or 4 years when combined with fire will help control trees and shrubs. Hay in August or later and leave a minimum of 6 inches of stubble.
- Cattle seem to avoid grazing violets while removing most other growth which makes violets much more common and available for larvae.