

## WILDLIFE

# Common ag practices key for pollinators, grassland birds

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### Discussions

and media coverage about the addition of the lesser prairie chicken (LPC) to the U.S Fish and Wildlife Service (USFWS)

List of Threatened

and Endangered Species have decreased since the September 2015 court order for its removal. However, monarch butterflies, some bee species and grassland birds are facing trouble caused by loss of habitat. The general public readily takes note of wildlife species reportedly in trouble. This is especially true for any species regarded as showy or pretty. While honey bees are not necessarily considered pretty by most, they are very important to humans. According to the Natural Resources Conservation Service (NRCS), one out of every three bites of food in the U.S. depends on honey bees and other pollinators. This, too, garners the attention of the general public. Consider the following statements:

"The monarch butterfly is one of the most recognizable species of wildlife in all of America." (USFWS)

"North American monarch butterflies are in trouble. Unless we act now to help the monarch, this amazing animal could disappear in our



*A diversity of grasses and forbs two weeks after a prescribed fire. Under proper management and adequate rainfall, this site will be dominated by grasses in three to four years and will be ready to burn again.*

lifetime." (USFWS)

"The state of monarchs reflects the health of the American landscape and its pollinators." (USFWS)

"Each winter since 2006, about 30 percent of beehives collapsed because of disease, parasites, poor nutrition, pesticide exposure and other issues." (NRCS)

"Managed honey bees are important to American agriculture because they pollinate a wide variety of crops, contributing to food diversity, security and profitability." (NRCS)

Whether the trouble for pollinator species and grassland birds will worsen or improve depends on many variables. For example, annual and seasonal weather patterns can have direct effects on survival and reproduction of these species, and an indirect effect through their influence on plant communities. Habitat loss caused by human development and poor farming and grazing practices also create indirect effects to these species manifested through loss of or changes to plant communities.

Arguably, the common thread of trouble for these species is loss of plant diversity, particularly forbs, which are flowering plants often regarded as weeds. Loss of milkweed that monarch butterflies need to lay their eggs and for their caterpillars to eat is thought to be negatively impacting their populations and migration. Monarch butterflies, honey bees and all other pollinators rely on the nectar from forbs and other flowering plants. Northern bobwhite quail, LPC, and many songbirds and neotropical migrant birds also rely on forbs for seeds, forage and insects.

Most farming and forage production management attempted to create uniformity and monocultures of plants for production purposes. For the long-term benefit

enefit of pollinators and grassland birds, the application of tools and processes that encourage a diversity of flowering plants on an extensive scale will be required. Perhaps it's time for more extensive use of prescribed fire and grazing management in a systems approach to create a greater diversity of plants on our grazing lands. Cover crops and the establishment of native plants in buffer areas and field edges on our croplands is also a systems approach to increase plant diversity. Properly applied, all of these practices improve overall health of the ecological system.

Ultimately, the trouble pollinators and grassland birds face may be indicative of future problems we will face for water quality and quantity, food production, and our health and well-being. People in agriculture are and always have been in the driver's seat when it comes to the health of our land, but perhaps we do not always take the correct route. More research is needed to develop ways to maintain production, while creating a diverse plant community for our pollinators and grassland birds. ■