

ENVIRONMENT

Title: Establishing Monarch Butterfly Breeding Habitat on Iowa Swine Production Sites, **NPB #18-132**

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revised

Scientific Abstract:

Conservation practices for monarch and pollinator habitat can be co-located at hog production sites. Investing in monarch conservation may also be less expensive for owner-operators than maintaining cool-season sods that typically surround confinement sites.

Native pollinators are on the decline in Iowa and throughout the country. This includes the beautiful, iconic monarch butterfly known for its incredible journey migrating between over-wintering grounds in Mexico and breeding territory throughout Iowa and neighboring states. The decline of monarchs and other pollinators has been linked to loss of habitat and food sources, including milkweed, the monarch larvae's primary food.

Planting pollinator habitat in grass-dominated sites near livestock facilities can create multiple benefits. Improvements in monarch conservation can meet the resource needs of many pollinators, as well as other wildlife species, without negatively impacting livestock production. However, there may be challenges and requirements to achieve habitat goals for specific species, such as the monarch butterfly.

Twelve demonstration sites were selected to assess management practices to replace Kentucky bluegrass near confinement facilities with pollinator habitat in Dallas, Hamilton, and Marshall counties. Site preparation (mowing and one or two glyphosate applications) was undertaken in the summer and fall of 2016. In 2017, the sites were mowed three times at height of 6 inches to ensure optimal vegetation establishment. Sites were mowed once or twice in 2018 at a height of 10-12 inches to reduce seed set of biennial weeds. Sites were surveyed in June, July, and August each year during 2016-2018 to assess the density and diversity of the native plant species and utilization of the habitat by monarchs.

These research results were submitted in fulfillment of checkoff-funded research projects. This report is published directly as submitted by the project's principal investigator. This report has not been peer-reviewed.

For more information contact:

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To communicate the results of this project, one statewide monarch butterfly summit was hosted at the Field Extension Education Lab in Boone County in July of 2018. This project also appeared on the cover of [Iowa Pork Producer magazine](#) (May 2019) and farmers Ben Crawford and Tom Tiernan described what they learned about monarch habitat in video interviews with ISU Extension (2018-2019), available to view at <https://monarch.ent.iastate.edu/video>. Additional communications were distributed online via social media @IowaMonarchs on Twitter and Facebook, as well as digitally at <https://www.extension.iastate.edu/news/> and www.iowamonarchs.info.