## Idaho farm producers, citizens urged to plant milkweed to help Monarch butterflies

By Steve Stuebner

The Western Monarch Butterfly – Idaho's state insect – is potentially on the verge of collapse, and the Natural Resources Conservation Service, Idaho Fish and Game and other partners are encouraging citizens and farmers across the state to plant pollinators on their property to help prevent the Western Monarch from becoming extinct.

The U.S. Fish and Wildlife Service is currently considering whether to list the Western Monarch as a threatened or endangered species; a decision is expected in June 2019. Western Monarch populations have crashed to fewer than 29,000 butterflies in 2018, compared to 4.5 million in the 1980s. The population declined by 85 percent in one year from 2017 to 2018.

The best solution is for people to plant milkweed and pollinating plants in general to provide nectar for Western Monarchs in different parts of their life cycle. Pollinator plants also are valuable for a number of other insects, including bees and wasps that kill unwanted insects on farm ground.

NRCS officials and partner agencies ultimately would like to see Idaho farmers plant milkweed and other pollinators on pivot corners and lands not being farmed to increase the habitat for Western Monarchs and other favorable insects that could benefit their crops. NRCS launched the Idaho Monarch Initiative in March.

"With the Monarch butterfly's western population in peril, we're encouraging our Idaho producers to work with their local USDA Service Centers and Soil and Water Conservation Districts on how to implement pollinator habitat practices into their operation for the benefit of our beloved Monarch butterflies," said Curtis Elke, NRCS state conservationist in Boise.

"NRCS offers more than three dozen conservation practices that enable producers to help Monarchs and other pollinators as well as benefit their agricultural operations," Elke says.

Admittedly, the initiative runs up against two paradigms – that milkweed is an unwanted weed on farms, and farmers trying to increase yields and income by farming "edge to edge" or "wall to wall," which has reduced the amount of natural habitat for Western Monarchs and other insects.

"It's going to take a paradigm shift, but we'd love to see ag producers get involved who are excited about the needs of wildlife," says Trisha Cracroft, NRCS state biologist in Idaho. "I think that's what we need for this program to succeed with our ag producers. Private lands have so much potential benefit."

"It's going to take a huge change and willingness to help from our large ag communities," adds Maria Pacioretty, wildlife habitat biologist for IDFG in Pocatello. Idaho citizens can help just by planting pollinators in their gardens at home, Pacioretty says. "We tell people that even if you live in an apartment, having one planter full of bee-friendly or butterfly friendly flowers is important," she says.

She sees the need for pollinator plantings as potentially a promising project for 4-H clubs or FFA groups. Pacioretty has been working with the Caribou-Targhee National Forest to put on local workshops to libraries and school groups about the issue. A display on Western Monarch Butterflies is on display currently at the Idaho Falls Public Library. More outreach workshops are needed throughout the state, she says.

"I think the more examples we have locally that we can promote as being successful, the more we will be able to get the word out," Pacioretty says.

Derek Tilley, manager of the NRCS Plant Materials Center (PMC) in Aberdeen, says he is starting to see the pollinator initiative catching on with farmers in Southern Idaho. Farmers who have existing EQIP contracts with NRCS are open to planting pollinators as an add-on to existing contracts, he said.

The PMC has been growing a pollinator garden in Aberdeen for four years to improve habitat for bees and Western Monarchs.

"It's not like anyone is asking farmers to take valuable farm land out of production," Tilley says. "Everyone has got a patch of ground on their farm that they're not using for crops – maybe corners on their pivots or some marginal ground that could still be used for pollinator habitat. Farmers should be aware that there are benefits for them to have a more diverse array of insects on their farm.

"Certain native insects and wasps can serve as effective predators on nuisance insects that they don't want attacking their crops," he says. "You can bring in predatory insects like wasps to eat the bugs you don't want with pollinator strips next to crops."

Bob Flagor, a supervisor on the Kootenai-Shoshone Soil and Water Conservation District, has been working on planting habitat for Western Monarchs for more than 30 years. He's also been involved in tagging/banding butterflies and captive-breeding Monarchs for years. Flagor and some friends helped the City of Rathdrum become the first Monarch City USA in the state of Idaho.

The Coeur d'Alene area and North Idaho area in general lies at the northern-most part of the Western Monarch range, where milkweed can grow.

"After everything we've done, I don't know if we're doing any good for Monarchs, but we're certainly not doing any harm," Flagor says.

He recommends that citizens plant milkweed and pollinators in their gardens, and he recommends planting large patches of milkweed to make it easier for Monarchs to find them. "Remember, they're flying thousands of miles to get here (during summer migration), and we should make it easier for them to find milkweed habitat."

"The No. 1 thing that people can do to support Monarchs is plant and spread milkweed far and wide," Flagor says.

He looks for places to plant outside of crop lands, such as CRP lands, utility right of ways, buffer lands adjacent to railroads, vacant lands next to commercial buildings.

Flagor encourages Monarch enthusiasts to notify the <u>monarchmilkweedmapper.org</u> web site, an interactive web site with areas pinpointed where milkweed habitat exists and Monarchs are observed using the habitat, and also areas where Monarch breeding may occur.

## **Monarch Life Cycle**

If people want to help with Monarchs and pollinators, it helps to understand the Monarch life cycle. Bob Flagor knows this information in detail because he's raised them in captivity.

The life cycle begins when adult Monarchs lay eggs on milkweed. Adults that have migrated to California in the winter will return to milkweed patches in Idaho in the summer to mate and lay eggs. When the eggs hatch, Monarchs emerge as caterpillars. This is when Flagor collects the caterpillars and raises them in captivity to increase survival.

"In the wild, Monarch larvae have a 2 percent survival rate," he says. "It's tough for them to make it from eggs to adults. But by raising them in captivity, we get over a 90 percent success rate."

Then, Flagor waits for the butterflies to hatch, tags them and releases them in July or August. "Then they have to migrate to Arizona or California," he says.

Late-blooming plants that produce nectar are key for Monarchs in the fall so they can "tank up" on nectar before embarking on the long migratory flight, Tilley says. Good nectar-producing plants at this time of year include milkweed, goldenrod, thistles and rabbit brush.

Because of the deep concern about Monarch populations overall, "we're reeducating ourselves about the needs for Monarchs," he says. "Milkweed used to be a pest."

For NRCS EQIP projects, the agency is looking for areas on farm land that might be at least one-half acre in size, Tilley says. He agrees with Flagor that it's important to plant a large patch of milkweed so the Monarchs can find them.

NRCS has funded all of the pollinator applications under the EQIP program in the last year, Cracroft says, and most of those projects have applied for funds ranging up to \$3,000 per application.

## Where to buy milkweed?

People can buy milkweed seed from online sources, if they'd like to get started in raising milkweed, officials said. Showy milkweed is a native Idaho plant that Monarch butterflies love. You also can dig up a mature milkweed plant and cut off a portion of the rhizomes from the root system, and plant the rhizomes to start a new plant, officials said.

The Pitkin Nursery at the University of Idaho is growing milkwood for public use. They will have 6,000 milkweed plants available for purchase by Sept. 1 of this year, officials said.

"We just started growing milkweed three years ago, and we're really seeing the interest and demand picking up," said Don Regan, manager of the Pitkin Nursery. "It's a weed, so it's very easy to grow. You don't need to plant a lot of them because they will fill in with more plants over time."

Cracroft points out that after planting milkweed or other pollinators, the plants will need to be watered to get established. "It's not like you plant it and walk away," she says. "You have to baby the plants a little bit. Keep an eye on them and make sure your plantings succeed."

Milkweed also can be toxic to cattle, so it's important to be careful where you plant it so that livestock would not eat it, she said. "Some species of milkweed are more toxic than others," she said.

If people or farmers want to help, Flagor encourages them to plant milkweed and do what they can to help the cause. "I encourage people to do anything to help the Monarchs," he says. "If we don't, they'll go extinct in our lifetime. That's just staggering, to me, to even think we could get to that point."

He recalls years ago seeing flocks of Monarchs flying along the Cascade Mountains. There would be groups of Monarchs 10 miles wide and 30 miles long. "Their populations back in those days were estimated in the billions. And now we're down to 28,000 individuals. We have got to do something to save the Monarchs."

For more information, see the following web sites:

- https://plants.sc.egov.usda.gov/
- https://www.monarchmilkweedmapper.org/
- https://xerces.org/
- https://monarchbutterflyshop.net/
- https://monarchjointventure.org/
- https://monarchwatch.org/
- https://journeynorth.org/monarchs
- NRCS Idaho office: <a href="https://www.nrcs.usda.gov/wps/portal/nrcs/site/id/home/">https://www.nrcs.usda.gov/wps/portal/nrcs/site/id/home/</a>
- Aberdeen PMC: https://www.nrcs.usda.gov/wps/portal/nrcs/main/plantmaterials/pmc/west/idpmc/

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