

You are cordially invited to a CRP and Ecosystem Services Webinar

The Webinar will be held Tuesday November 18 at 2:00 pm Eastern time. Clint Otto, a research ecologist with the United States Geological Survey –will be presenting “*Improving Forage Conditions for Honey Bees on USDA Conservation Lands*”.

To participate go to the link below, enter as a guest and move to the room.

<http://fsawebinars.adobeconnect.com/usgshoneybee/>

A phone call connection is provided for those of you who **do not have a microphone with their computer**. If you use this connection please turn off your computer microphone or you will produce feedback that disrupts the webinar. The call-in number is **888-844-9904** and access code is **9049920**

Improving Forage Conditions for Honey Bees on USDA Conservation Lands

Abstract - Habitat loss and forage reduction pose significant risk to domesticated honey bees and native pollinators. Pollinator habitat loss is of primary concern in the Great Plains where conservation grasslands are being put back into agricultural production. We are developing research to address how forage conditions can be improved for honey bees and native pollinators on US Department of Agriculture conservation lands throughout the northern Great Plains and Upper Midwest. We are applying wildlife ecology principles and novel techniques to address research hypotheses related to pollinator forage and land-use effects on pollinator populations.

In 2014 we initiated pilot research with FSA and NRCS to develop techniques for monitoring honey bee forage preferences and evaluating how USDA conservation lands contribute to honey bee colony health and productivity at a landscape scale. This research led to the development of genetic sequencing techniques for

determining what plants honey bees utilize for pollen forage. Genetic sequencing results from two apiaries revealed that bees collected pollen from over 60 genera of plants in a single year. Genetic sequencing will allow honey bee foraging data to be collected quickly and easily across landscapes. Preliminary results suggest colony weight gain (i.e., nectar collection) is associated with land use conditions surrounding commercial apiaries; however, this association requires further study. In 2015 will expand our research across North Dakota, South Dakota, Minnesota, Wisconsin, and Michigan. Information gathered from this study will be used to evaluate seed mix options for USDA conservation programs. Our research results will be published on the US Geological Survey's Pollinator Library website - an online repository of pollinator forage preference information - so that research findings can be effectively distributed to natural resource managers and policy makers.

USDA's Farm Service Agency (FSA) administers the 24 million acre Conservation Reserve Program (CRP), a program that improves water quality, enhances wildlife populations, sequesters carbon, reduces erosion, and provides other environmental benefits. The CRP does this by working with producers and landowners to identify and protect fragile croplands by placing them into conserving covers. The highest density of CRP land in the nation occurs in the High Plains. FSA's Economic and Policy Analysis Staff (EPAS) has established a Monitoring, Assessment, and Evaluation project to quantify and document the multiple benefits generated when lands are placed into the CRP, and to identify successful innovative practices.

EPAS, United States Geological Survey (USGS), and our conservation partners are collaborating to present a series of webinars. The series will highlight the monitoring and assessment activities of FSA and how partnerships within and outside USDA are working together to fill critical gaps and develop tools to better inform policy and management decisions.

The CRP webinars are designed to present the results of projects that identify and quantify the environmental services generated by CRP. The webinars provide conservationists, decision makers, scientists, and policy analysts with the opportunity to review preliminary results and talk with the scientists conducting the monitoring and assessments. FSA's goal is to engage in an open dialogue on how to measure benefits from the CRP and to better administer the program.