

Trends With Cover Crops: Results of Two National Cover Crop Surveys



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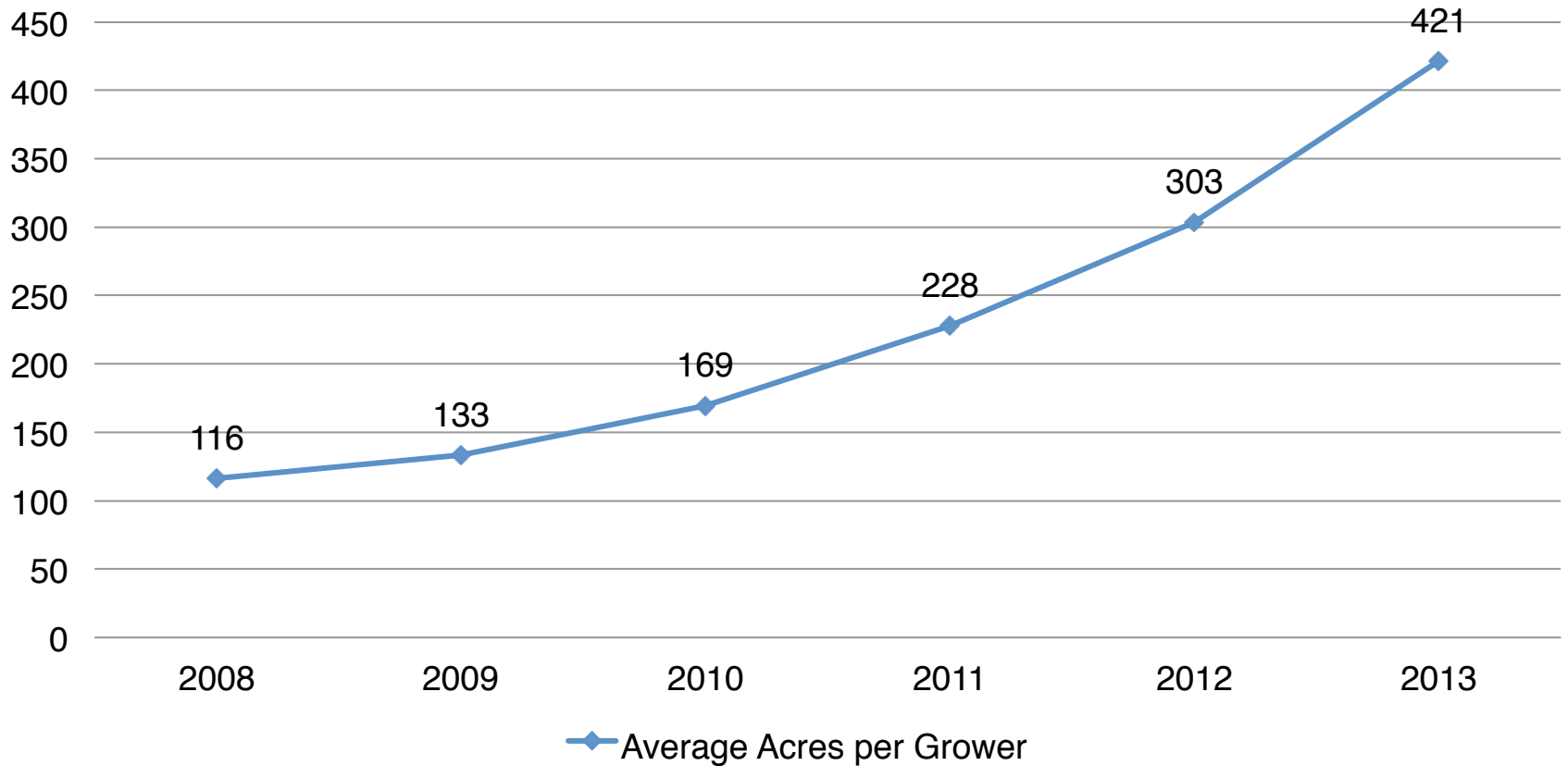
SARE/CTIC Cover Crop Survey

- For the 2012-13 survey, 759 farmers who use cover crops completed the survey
 - Survey was done both online and through paper copies at Midwest farmer meetings
- For the 2013-14 survey, over 1500 farmers who use cover crops have completed the survey, representing 367,021 acres of cover crops; the survey also includes a smaller set of questions for farmers who have not yet used cover crops – over 500 responses
 - The 2013-14 survey is an online survey with wide national distribution



Average Cover Crop Acres per Respondent

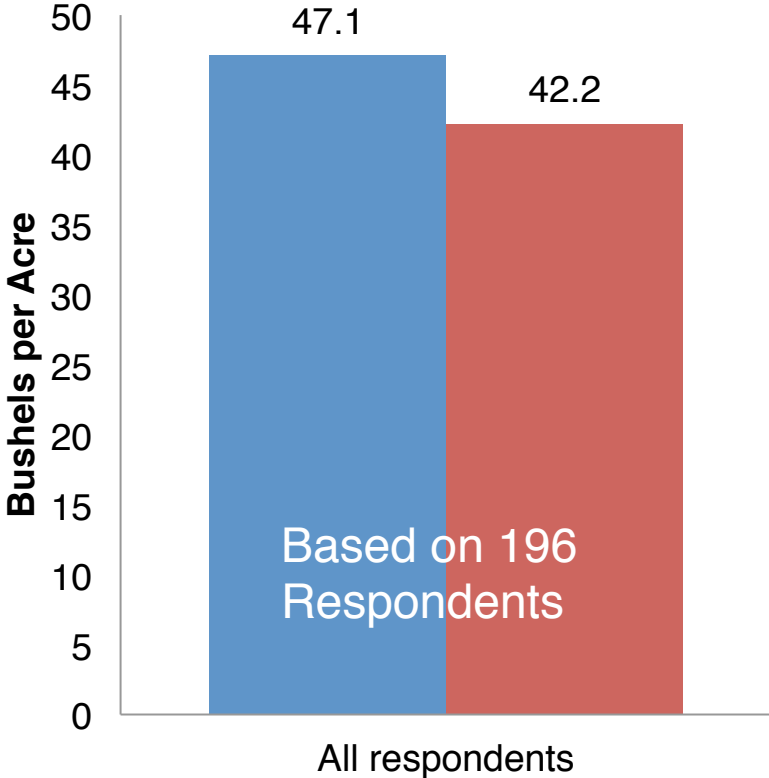
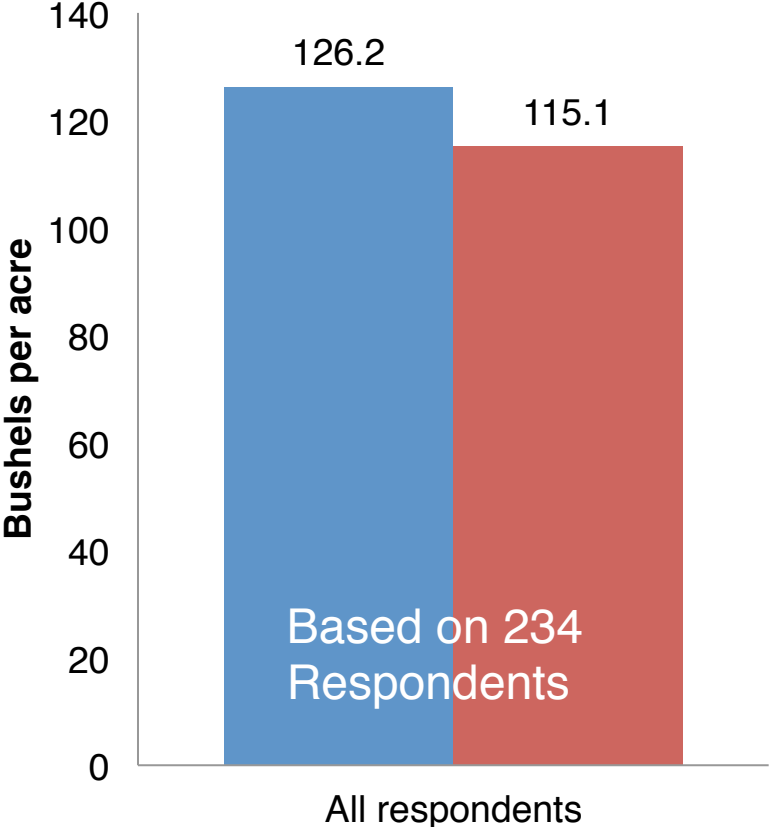
Average Acres per Respondent in 2012/13 Survey



COVER CROP IMPACT ON CORN AND SOYBEAN YIELDS IN THE DROUGHT YEAR OF 2012



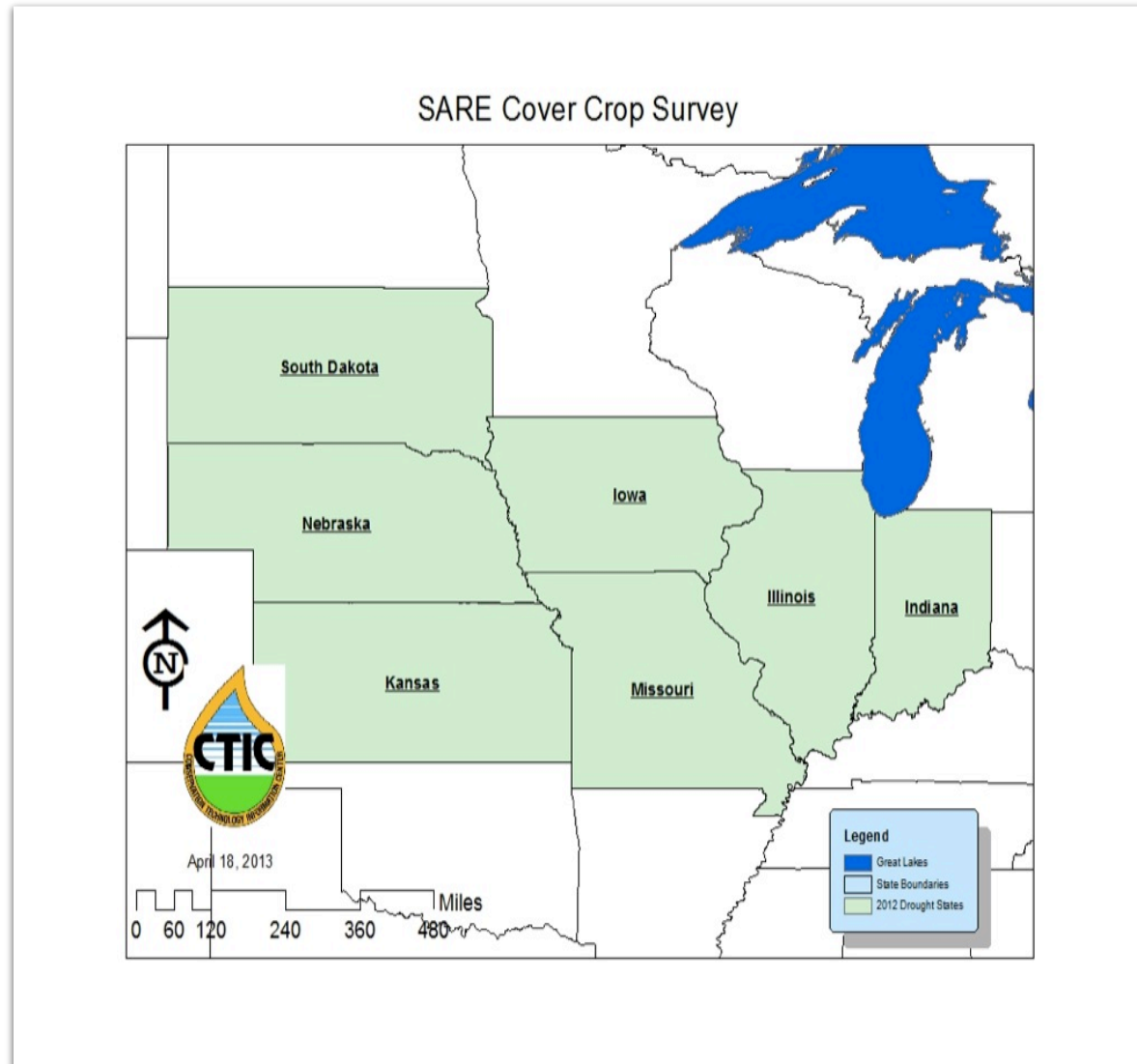
Impact of Cover Crops on Corn and Soybean 2012 Yields*



■ corn with covers ■ corn without covers ■ Soybeans with covers ■ Soybeans without covers

**Yields are for 2012 on farms where farmers had side by side fields with similar management and varieties, other than using cover crops or not*

States affected by the 2012 drought



Drought States Commodity Crop Yields as Impacted by Cover Crops in 2012

- Broke the data down to look at yield impact in seven of the states hit hardest by drought
(specifically NE, KS, SD, MO, IA, IL, and IN)

Group of respondents	Corn	Soybeans
All respondents with side-by-side field comparisons	9.6% Yield Increase	11.6% Yield Increase
Drought states (7 states)	11.0% Yield Increase	14.3% Yield Increase

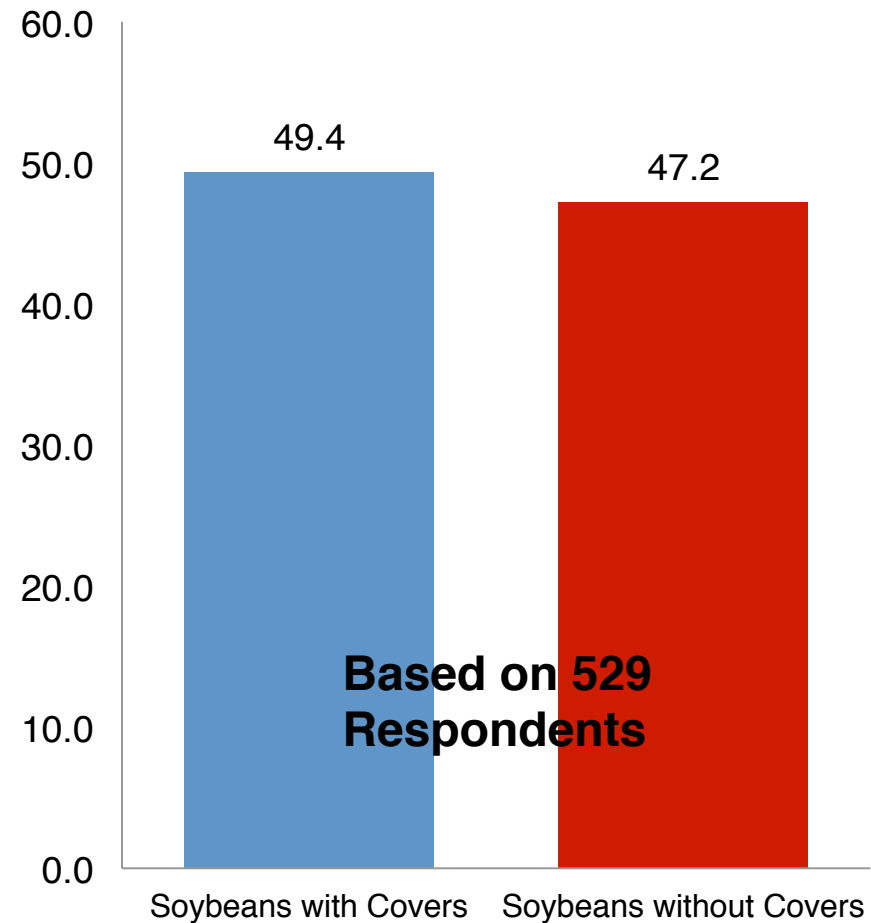
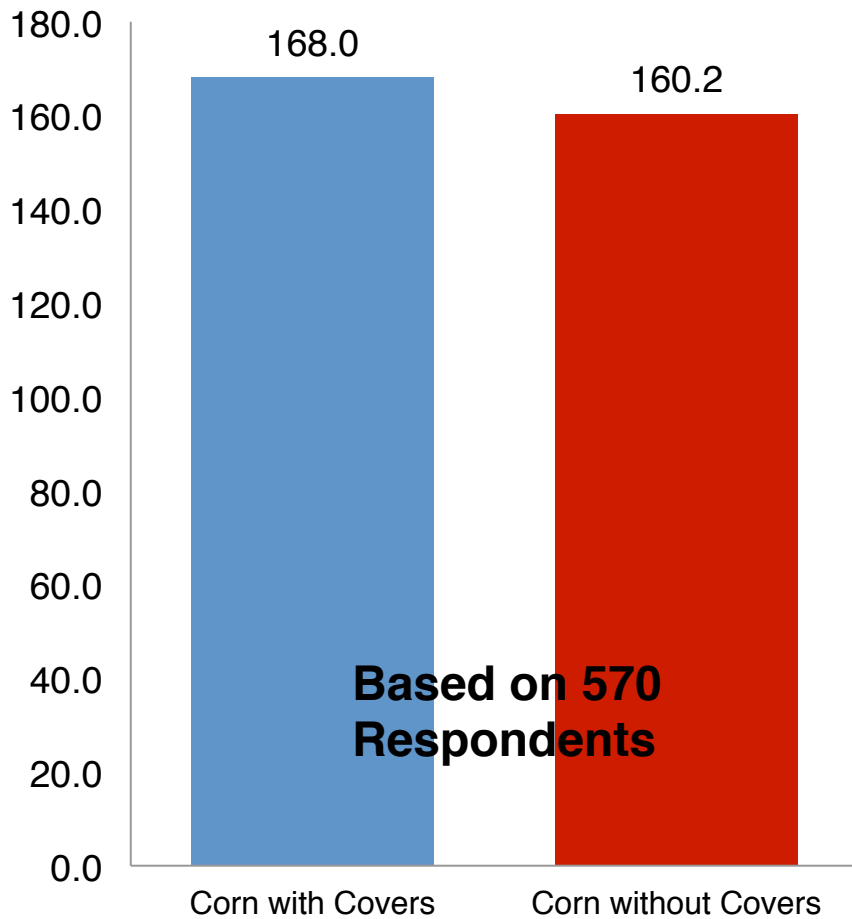
How can cover crops help in a drought?

- Benefits that may occur from cover crop in first year
 - Deep rooting cover crops lead to deeper rooting cash crops
 - Residue blanket reduces evaporation
 - Possible changes in mycorrhizae and overall soil biology
- Long term benefits
 - Increased organic matter
 - Better rainfall infiltration
 - Better retention of moisture in the soil profile
 - Better soil health
 - Less restrictions to root growth
 - Use of cover crops is often accompanied by other changes, like the move to no-till (each tillage pass causes the loss of soil moisture)

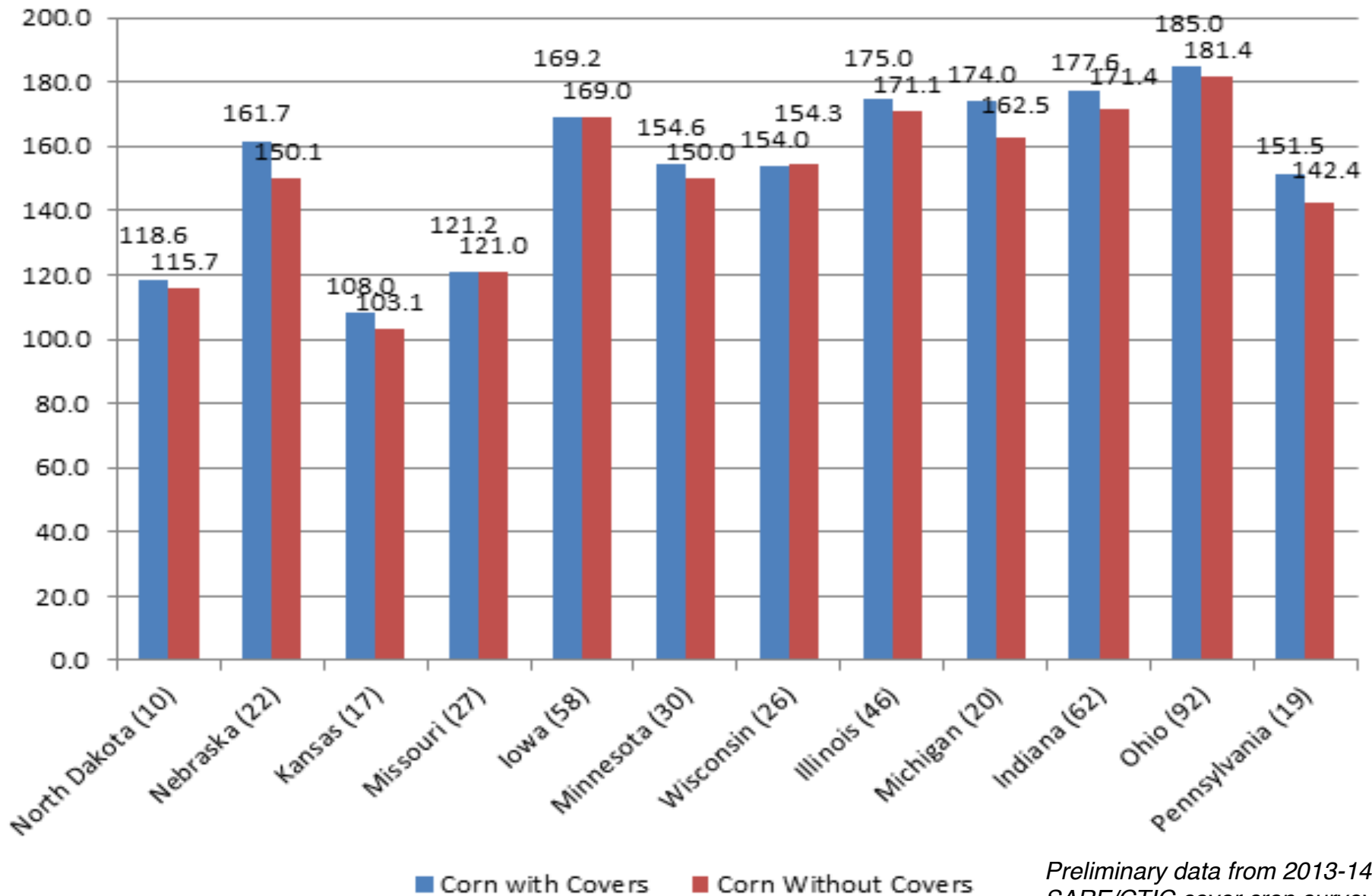
COVER CROP IMPACT ON CORN AND SOYBEAN YIELDS IN 2013



Impacts of Cover Crops on Corn and Soybean Yields in 2013



Corn Yields by State



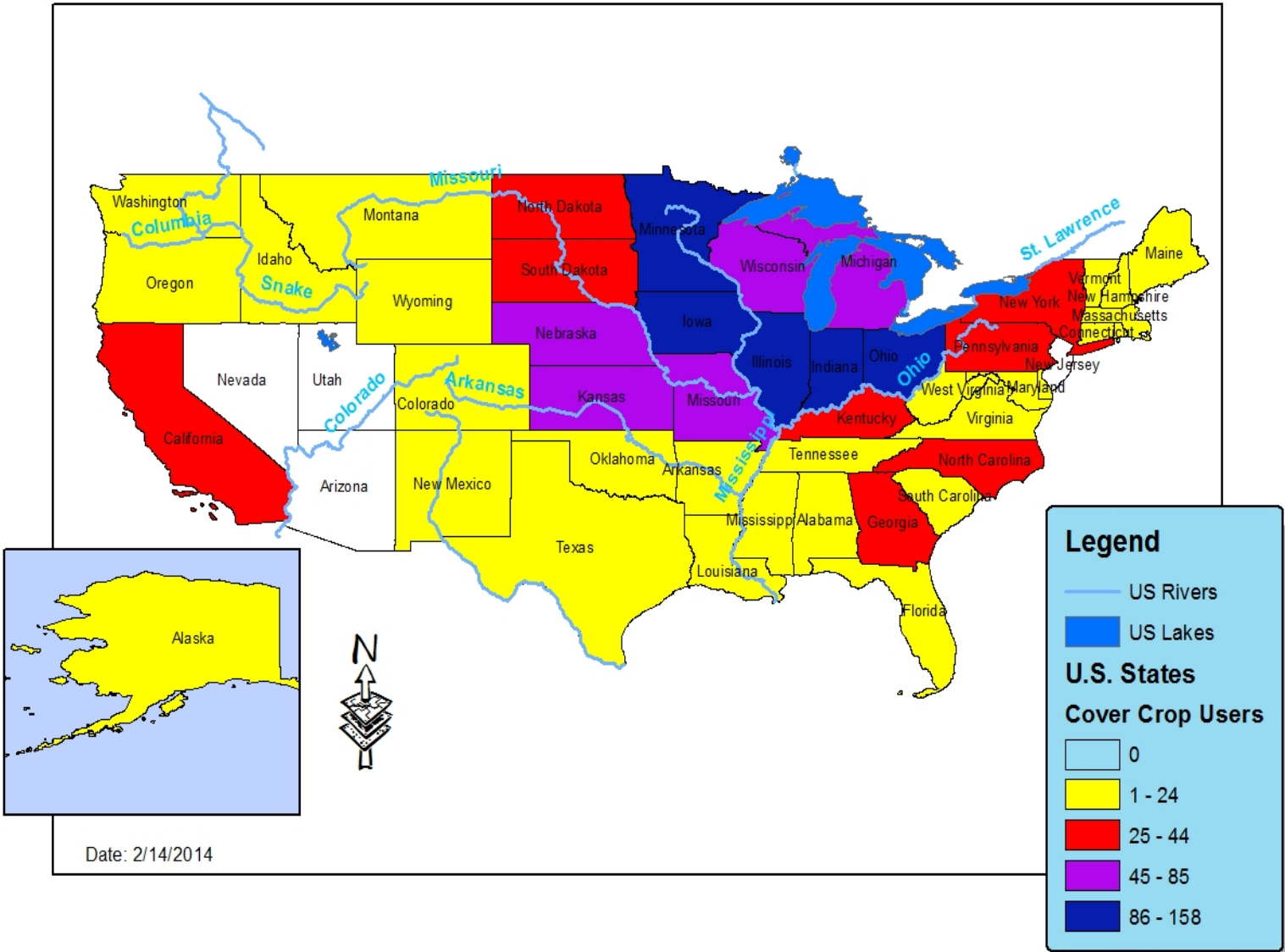
*Preliminary data from 2013-14
SARE/CTIC cover crop survey*

YIELD IMPACT OF COVER CROPS

Based on two years of national surveys with data from hundreds of farmers, cover crops boosted corn and soybean yields with a **5 to 10% increase.**

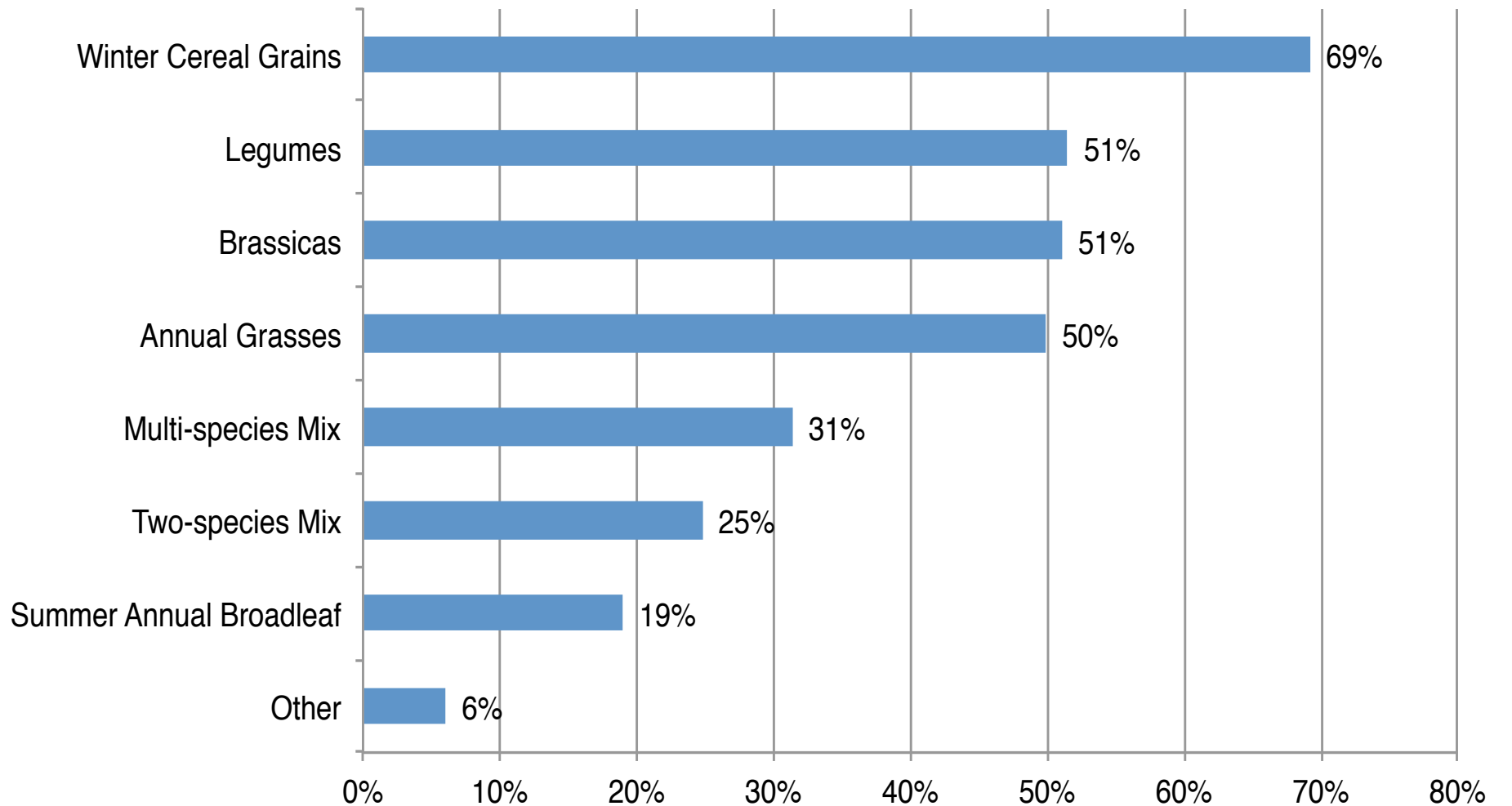


Cover Crop User Respondents by State



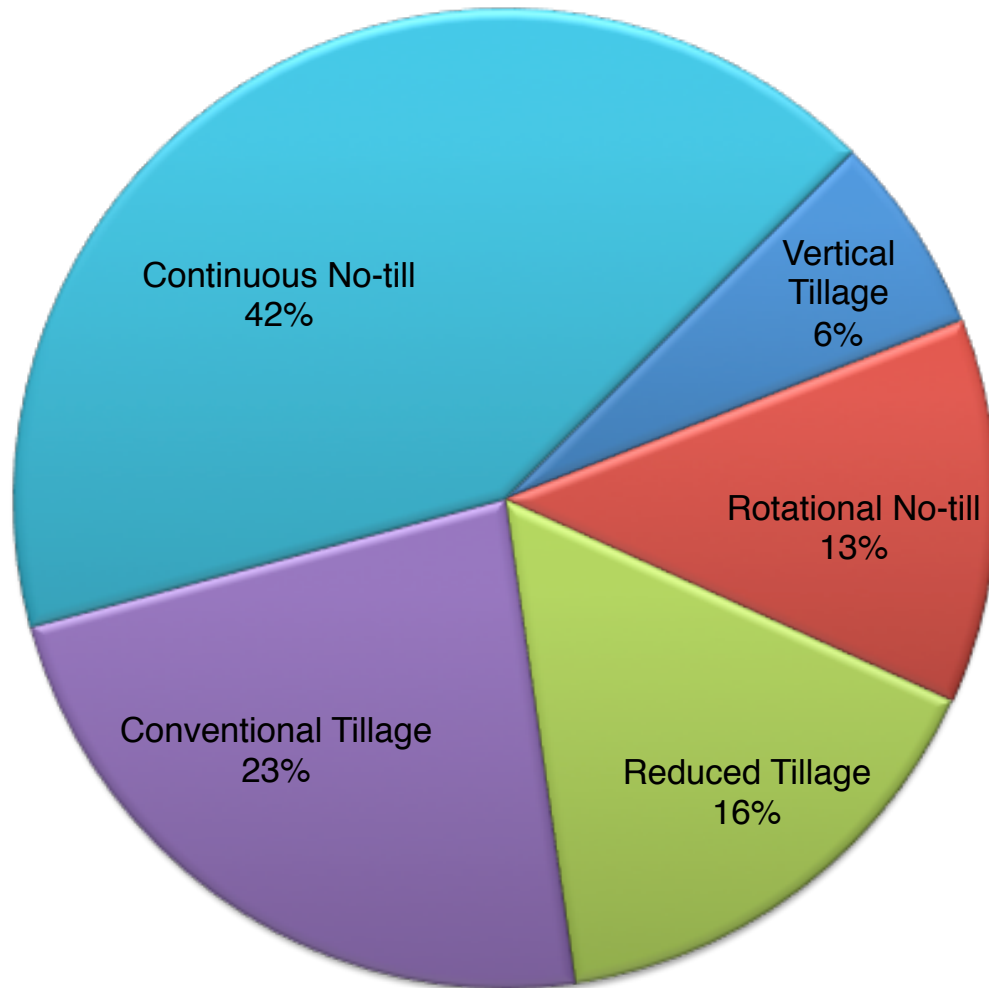
Date: 2/14/2014

Cover Crop Species Used by % of Respondents



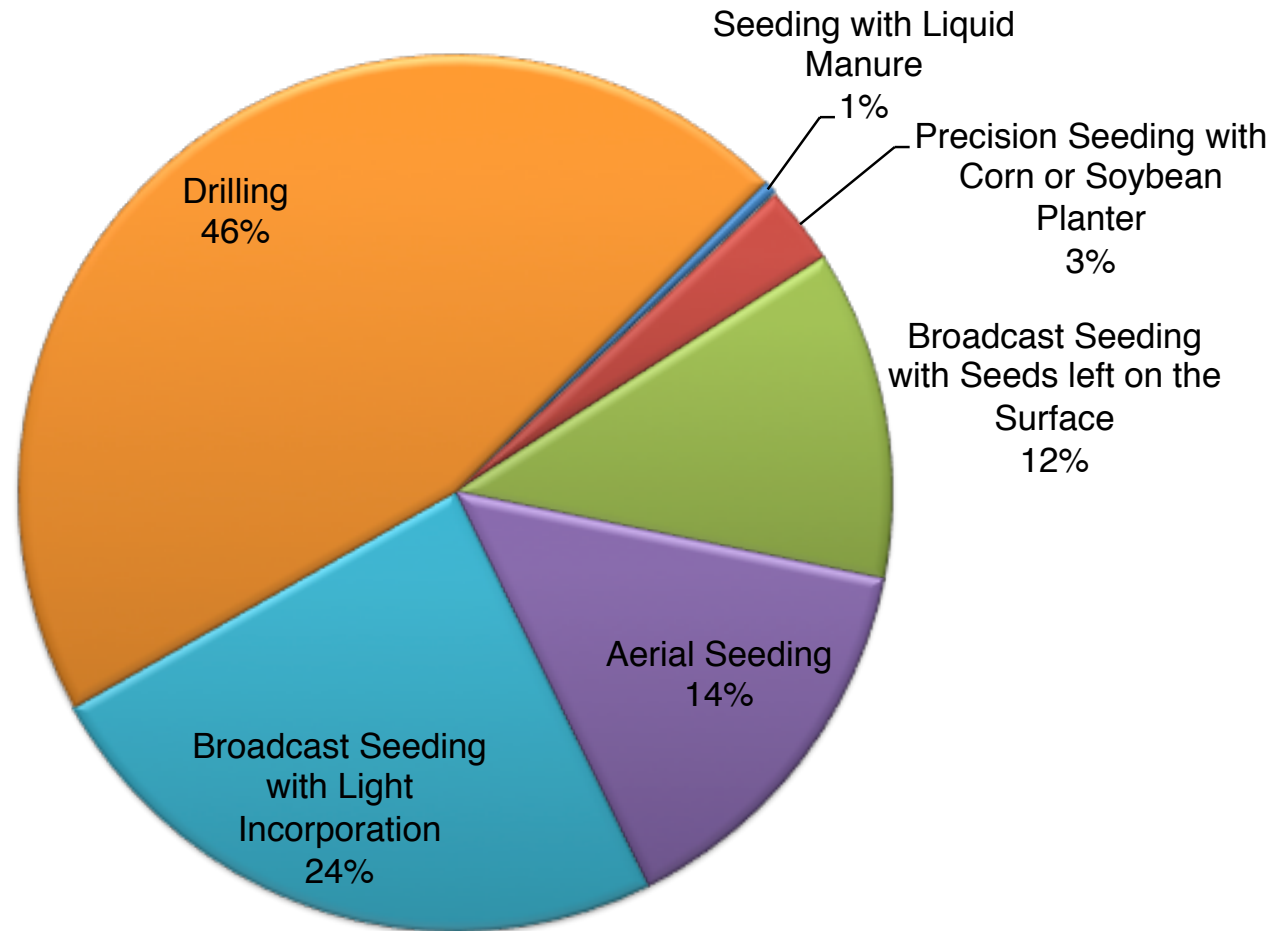
Preliminary data from 2013-14 SARE/CTIC cover crop survey

Predominant Tillage System Used With Cover Crops in 2013



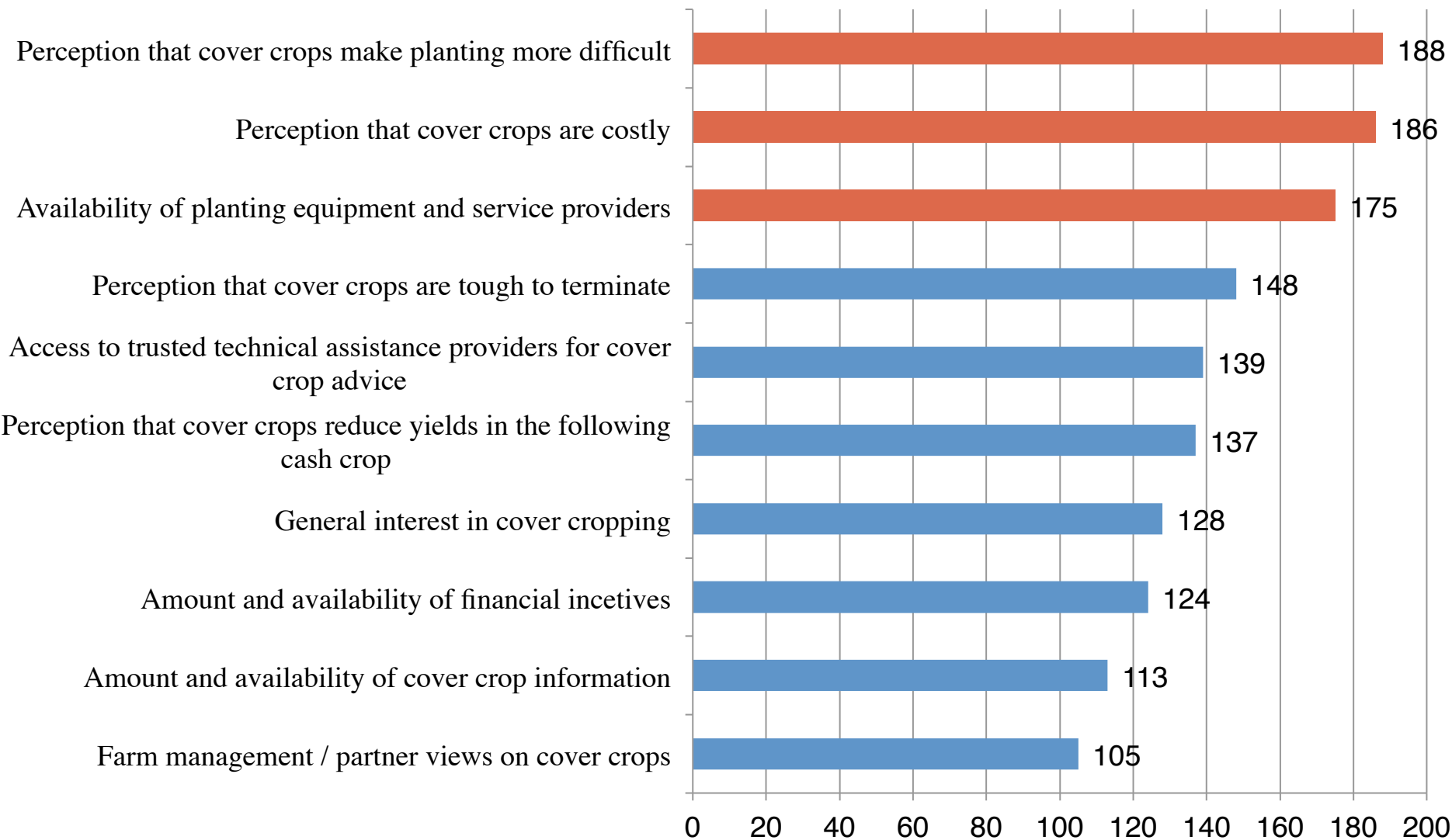
Preliminary data from 2013-14 SARE/CTIC cover crop survey

Primary Method of Seeding Cover Crops in 2013



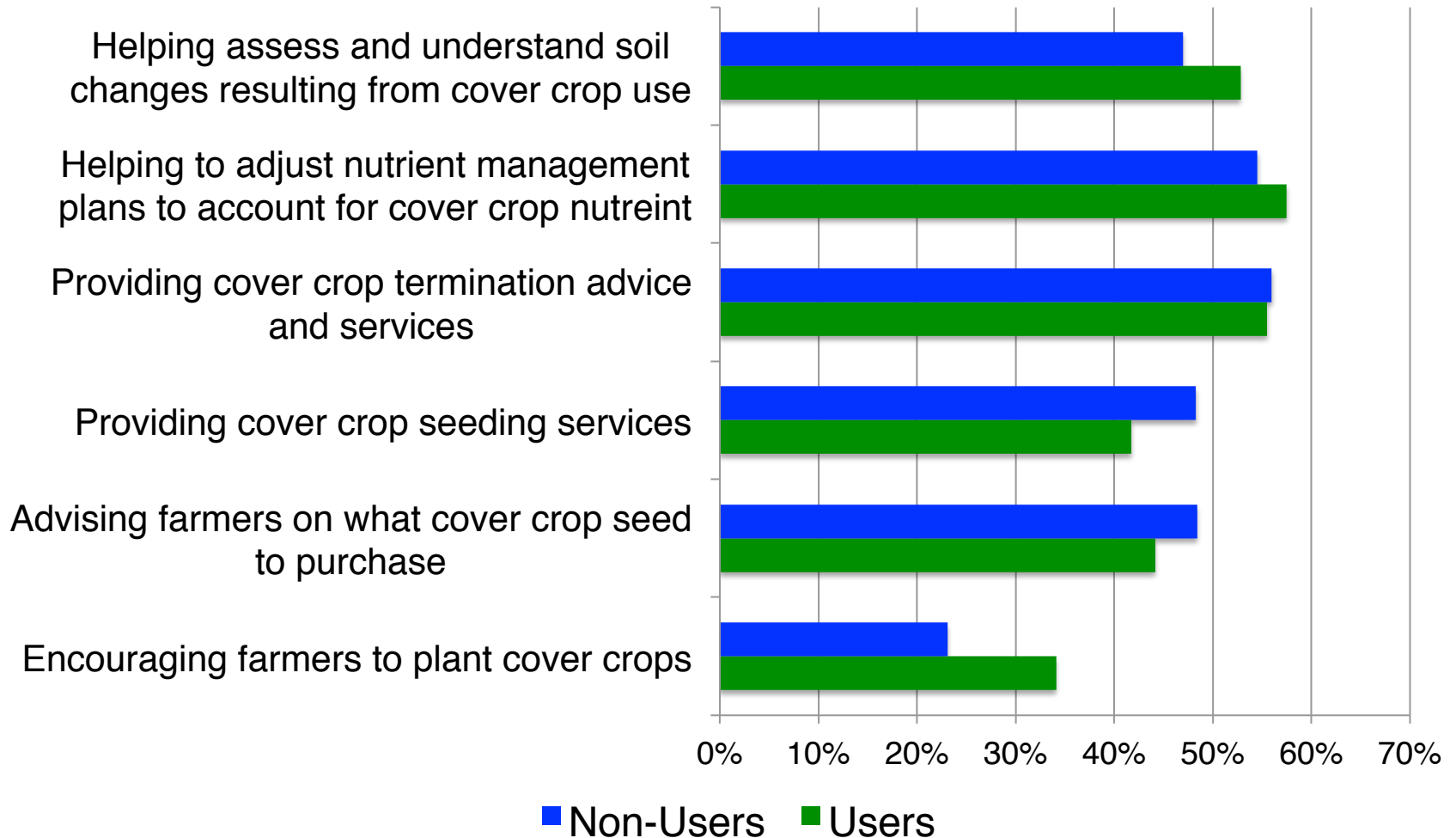
Farmers Not Yet Using Cover Crops

Rating the Factors that May Limit Cover Crop Adoption

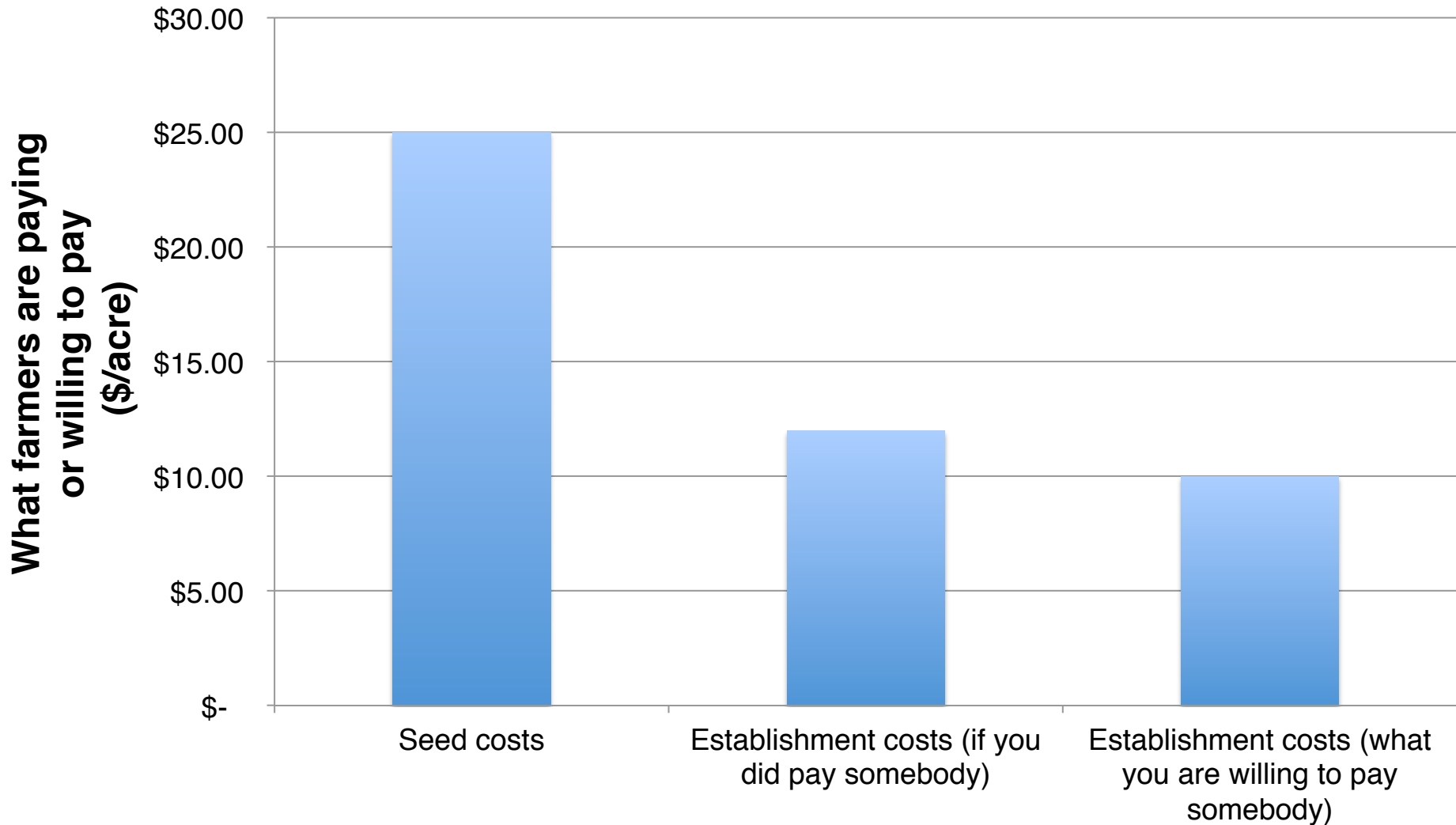


Preliminary data from 2013-14 SARE/CTIC cover crop survey

Cover Crops Role of Ag Retailers

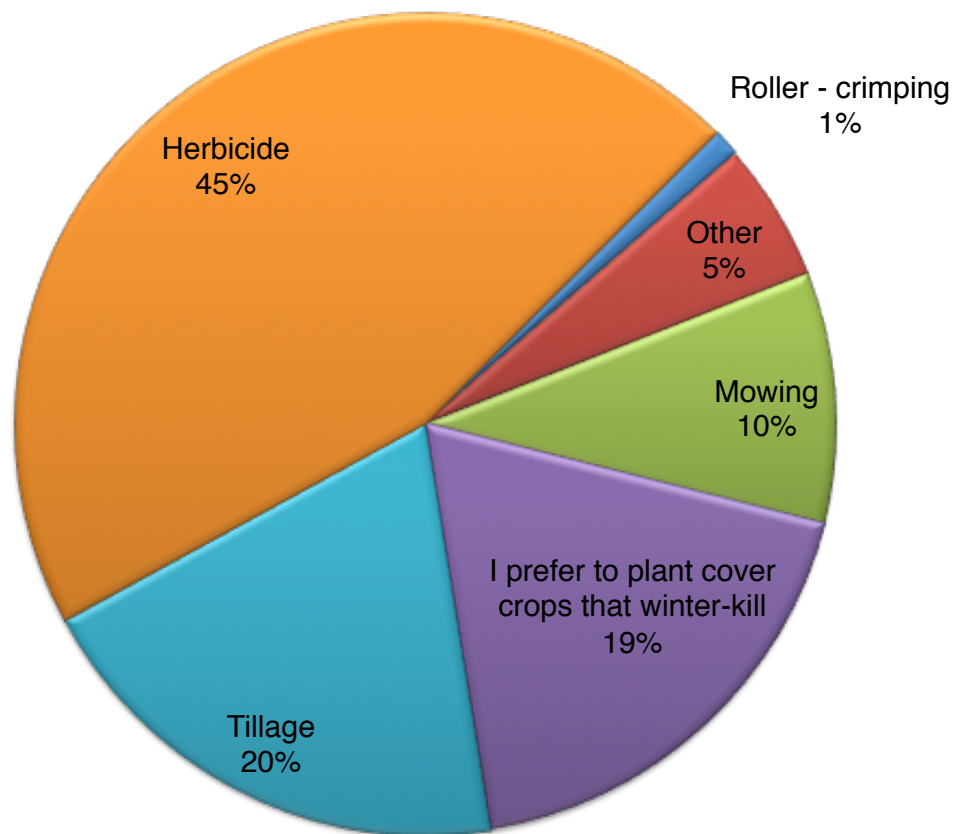


Median Cover Crop Seeding Costs



Preliminary data from 2013-14 SARE/CTIC cover crop survey

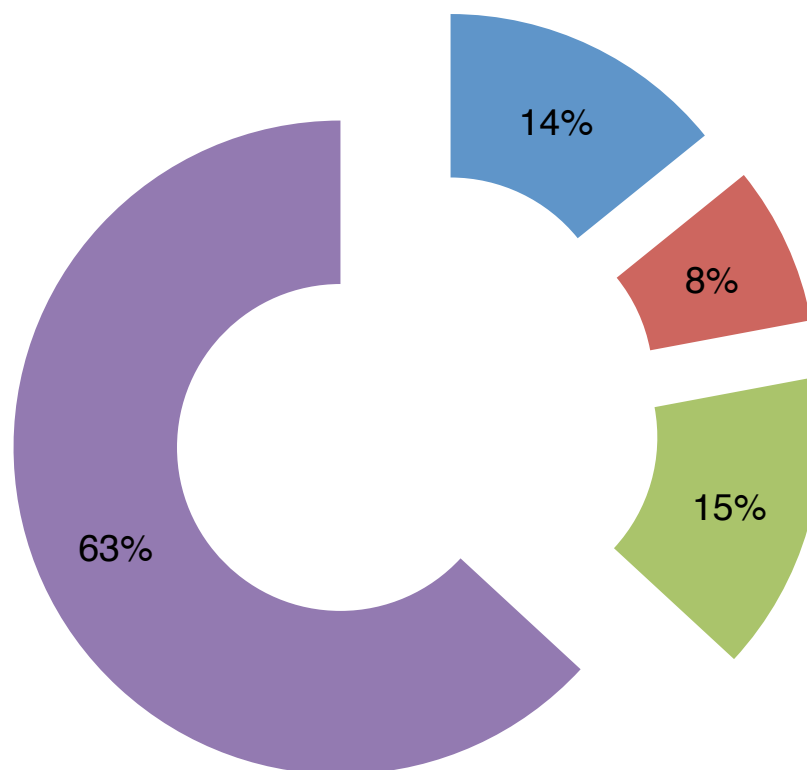
Primary Cover Crop Termination Methods Used in 2013



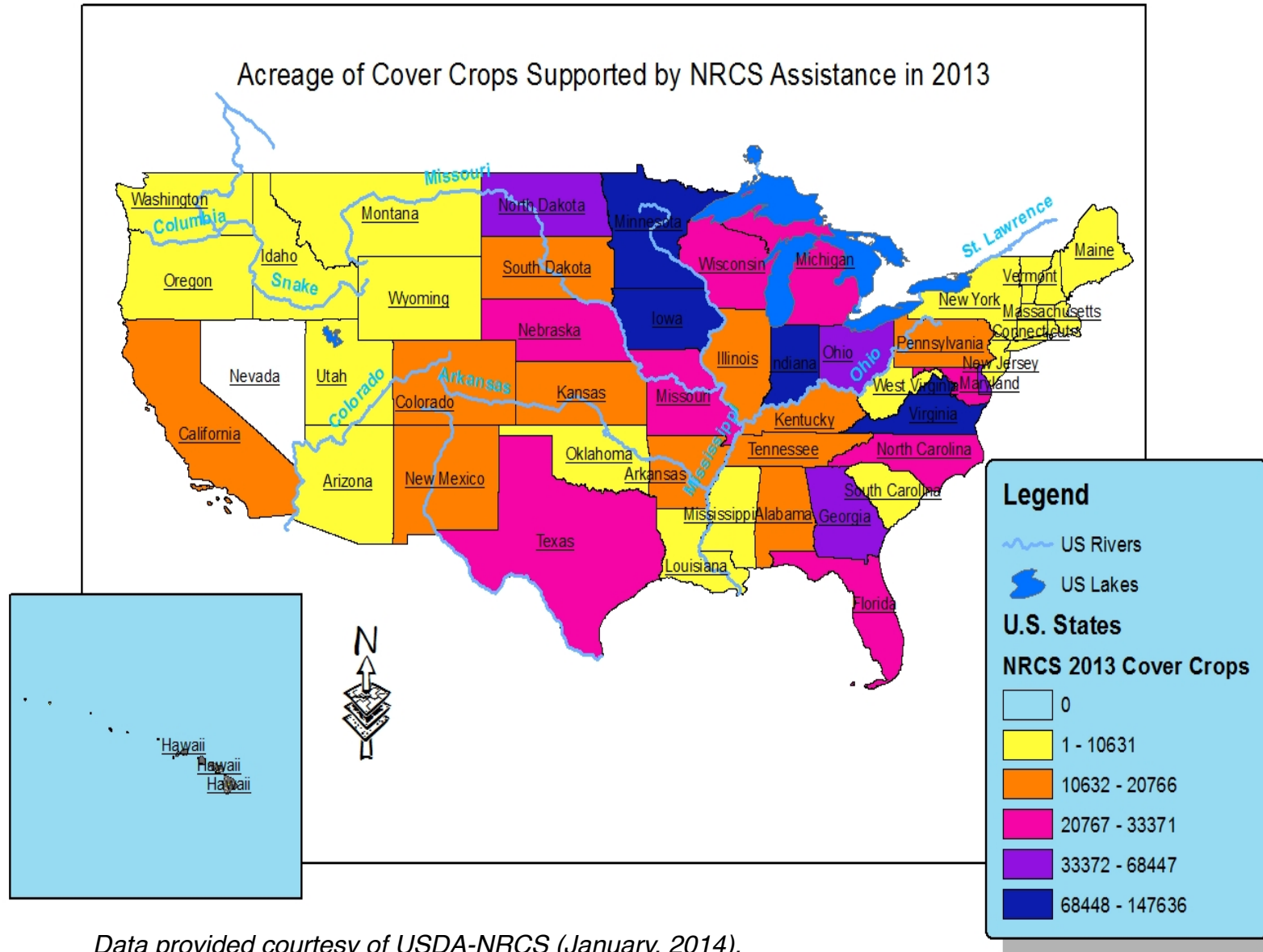
Cover crop cost share

How Financial Assistance is Used

- Yes - I initially received cost-share but now I largely self-fund
- Yes, I have only planted cover crops using financial assistance
- Yes, I have periodically received and used financial assistance
- No - I have not received financial assistance to plant cover crops

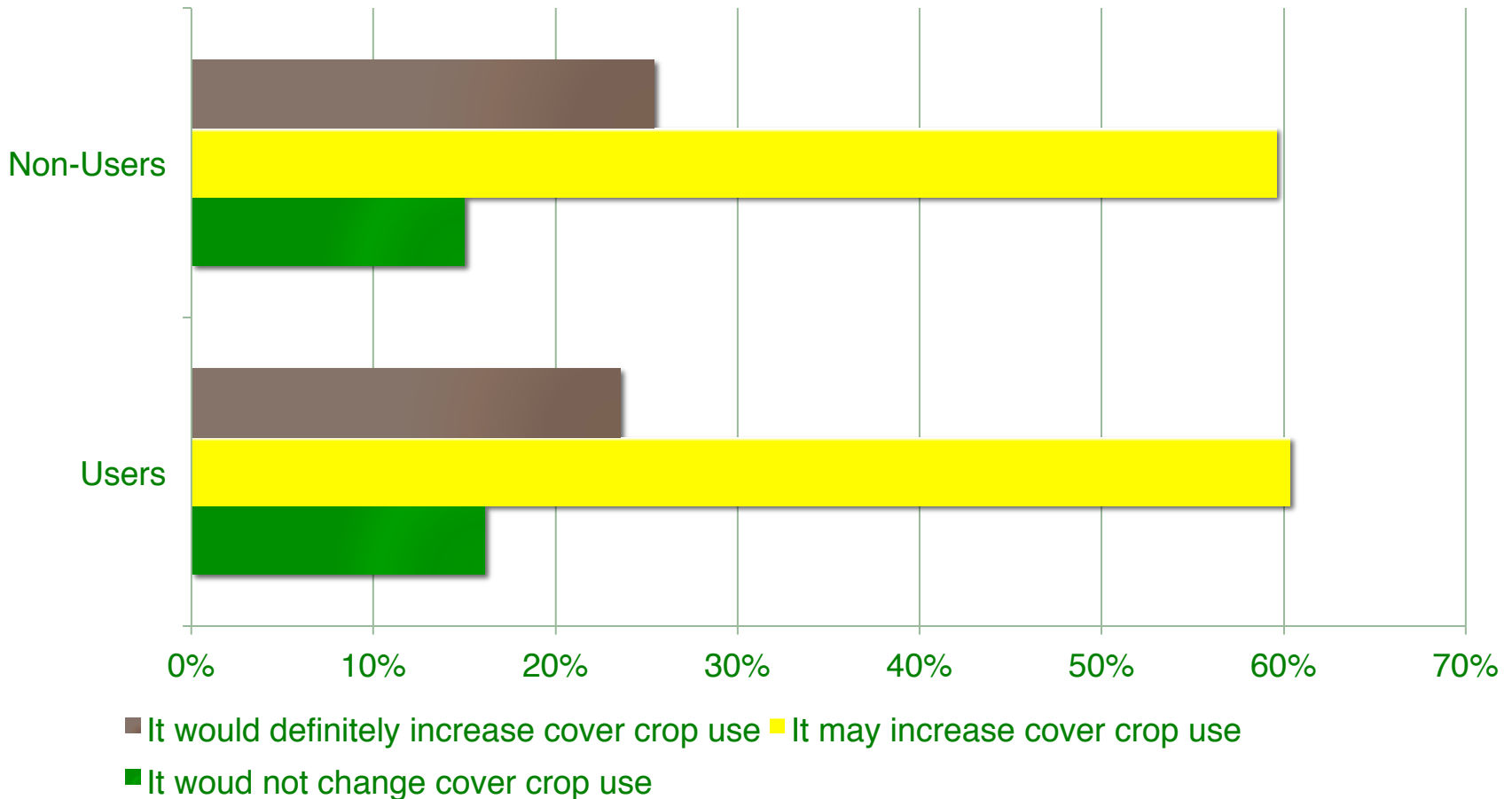


Acreage of Cover Crops Supported by NRCS Assistance in 2013



Cover Crop Incentives

If using cover crops would result in lower crop insurance premiums, how would that influence cover crop adoption ?



What cover crop farmers would tell their neighbor

- It is a systems approach based on a return to the way nature is intended to work and therefore can be extremely successful.
- If you expect to be able to farm your land in 50 years, or have your child or grandchild farm it, then you need to use cover crops.
- There is a wide array of cover crops that can improve every rotation and soil with a little bit of planning.
- Keeping the soil covered year-round provides food for the life in the soil, which in turn provides nutrients for your crops.
- We must take better care of the soil we depend on.

Visit www.sare.org/covercrops
for full survey results

