How to assess hive placement

Hello!

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I work at the Center for Rural Affairs and have had bees for 7 years. I work with beginning farmers, beekeepers, and landowners in my work.

1

Recommended resources

Tools to help assess habitat

The Xerces Society
for Invertebrate Conservation

Native Bee Conservation

Pollinator Habitat

Assessment Form and Guide

FARMS AND AGRICULTURAL LANDSCAPES

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The Xerces Society for
Invertebrate Conservation

www.xerces.org

Opportunities in Agriculture

CONTENTS

Available at www.sare.org/cover-cropping-for-pollinators, or order free hard copies by calling (301) 779-1007.

SARE
Sustainable Agriculture Research & Education

Cover Cropping for Pollinators and Beneficial Insects

Doug Crabtree uses many tools to make his Montana farm bee friendly. – Photo by Jennifer Hopwood; Phacelia is an attractive pollinator cover crop. – Photo by John Hayden; Clover fixes nitrogen and provides bee forage. – Photo by Judson Reid

DOUG AND ANNA CRABTREE'S VILICUS FARM RESTS on more than 2,000 acres in northern Montana, and it is a model of how cover crops can be a foundation of pollinator and beneficial insect management. Like many farmers, their approach to cover cropping began with an interest in soil health and quickly grew to encompass much broader goals as they recognized the additional benefits cover crops could provide.

"We want to implement pollinator conservation at the field-level scale," Doug says. "Anyone can create a small wildflower strip, but as we scale up, we need conservation areas distributed across the entire operation."

While the Crabtrees have established permanent native wildflower strips around many of their fields to provide a skeleton of habitat throughout the farm, extensive cover crop rotations provide the muscle that makes their operation a rich landscape for bees and other beneficial insects.

This commitment to cover cropping is having clear and positive impacts. Flax, sunflower and safflower are just a few of the Crabtrees' regular crops that either require or strongly benefit from insect pollination. And, because of their commitment to integrating habitat for wild pollinators throughout their holdings, the Crabtrees have never needed to bring honey bee hives onto the farm for pollination. Instead, a walk through their fields quickly reveals an abundance of wild bumble bees, longhorn bees, sweat bees and more—all supported by the farm's habitat. A farm's ability to support its own pollinator community provides security, especially if managed honey bee hives become scarce or expensive.

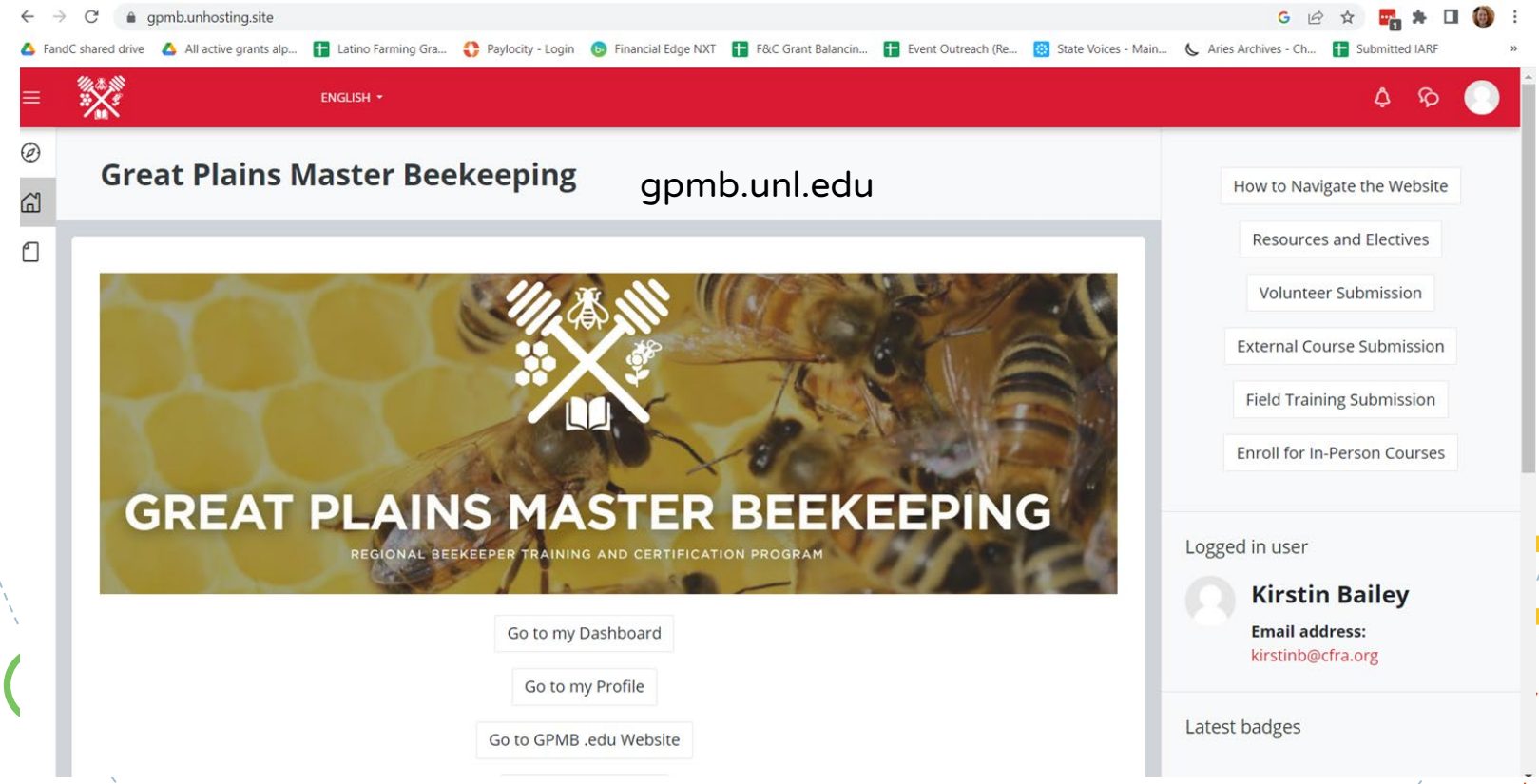
In addition to supporting the pollinator community, cover crops have many traditional uses on a farm. These range from preventing erosion and improving soil health to managing weeds and serving as an additional source of income when part of a double-crop system. With cover

2/20

Relative Value of Cover Crop Species to Bees and Other Beneficial Insects

Cover Crop	Life Cycle	Seeding Rate (pounds/acre single species)	Seeding Depth (inches)	Honey Bee Value	Wild Bee Value	Beneficial Insect Value (predators and parasitoids)	Alternative Host of Crop Pests	Notes
Clover, red	Perennial	5-20	¼	Moderate	High	Low	Various leafhoppers, true bugs and generalist aphids	Typically short-lived; high value for bumble bees
Clover, rose	Annual	10-25	¼	Moderate	High	Moderate	Various leafhoppers, true bugs and generalist aphids	Excellent bumble bee plant
Clover, strawberry	Perennial	5-15	¼	High	High	Moderate	Unknown	Can be weedy and invasive
Clover, subterranean	Annual	10-20	¼	None	None	Low	Pea aphids, tarnished plant bugs	Flowers are inconspicuous and do not attract pollinators
Clover, white	Perennial	5-15	¼	High	High	Moderate	Various leafhoppers, true bugs and generalist aphids	Considered a top honey plant
Chickpea	Annual	80-120	1½	Low	Low	Low	Pea borers, wireworms	Beneficial insects are attracted to extrafloral nectaries
Cowpea	Annual	30-90	1	High	High	High	Various stink bugs, leaf-footed bugs, aphids	Extensive extra-floral nectaries attract large numbers of beneficial parasitoid wasps as well as other beneficial insects
Fava bean	Annual	80-160	3	Low	Moderate	Moderate	Unknown	
Lablab	Annual	30-40	1-4	Moderate	Moderate	Moderate	Unknown	Vining growth habitat; more common in subtropical climates
Lupin	Annual	40-120	1-2	Low	Moderate	Moderate	Unknown	
Medic	Annual (a few species are perennial)	10-20	½	Low	Low	Low	Alfalfa weevils, pea aphids, tarnished plant bugs	Small, nondescript flowers attract few beneficial insects
Partridge pea	Annual	10-20	¼-¾	Moderate	High	High	Various leafhoppers	Extensive extra-floral nectaries attract large numbers of beneficial parasitoid wasps
Pea, field	Annual	50-100	2	Low	Low	Low	Tarnished plant bugs	
Sainfoin	Perennial	40-80	½	High	High	Moderate	Unknown	Considered a top honey plant
Soybean	Annual	35-120	1	Moderate	Moderate	Moderate	Wireworms, bean leaf beetles, potato leafhoppers and various others	
Sunn hemp	Annual	20-40	¾	Moderate	High	Moderate	Unknown	Attracts wild carpenter and leafcutter bees in tropical farm systems; supports parasitoids of corn earworm in the Pacific Islands region
Sweet clover	Biennial	6-20	½	High	High	High	Unknown	Considered a top honey plant; may be weedy or invasive in some areas

For Beekeepers



Resources Mentioned:

Xerces Pollinator Habitat Assessment
-https://xerces.org/pollinator-conservation/habitat-assessment-guides

SARE Cover Crops for Pollinators
-https://www.sare.org/wp-content/uploads/Cover-Cropping-for-Pollinators-and-Beneficial-Insects.pdf

Great Plains Master Beekeeping
-GPMB.UNL.EDU