

Parasitoids to manage wheat midge continues in Montana during 2016

The wheat midge (formally called the orange wheat blossom midge) can cause significant damage to spring wheat and is widely distributed throughout Montana. A state-wide monitoring effort has been ongoing since 2014 and the results have been posted on Pestweb (https://pestweb.montana. edu/). The information supplied on this website shows that counties in the Northwest, Northcentral, and northeastern parts of the state have the highest levels of infestation. Fortunately, other insects may hold part of the solution for controlling the wheat midge.

A small parasitic wasp, Macroglenes penetrans, attacks the wheat midge, helping to regulate populations. This parasitoid is credited with controlling about 25 to 40 percent of the midge population in parts of Canada and North Dakota. In some instances, parasitism rates of greater than 75 percent have been documented.

Efforts to introduce the parasitic wasp into Montana are on-going. This effort is a continuation of work that began in 2008 at the Northwestern Agricultural Research Center (NWARC) in Kalispell to address a serious infestation of wheat midge in the Flathead and Lake Counties. The parasitoid was supplied by entomologists from North Dakota State University and released at a single

sight in Flathead County. After the initial release, the parasitoid population slowly increased, and by 2014, high numbers of the wasp could be found throughout Flathead County. In July of 2014 a new collection of the parasitoid was collected from the Lethbridge area and released in both the Kalispell and Conrad-Valier areas. The good news for the spring wheat growers is that Macroglenes penetrans populations have been slowly establishing in Pondera and Flathead Counties, and as of 2015. parasitoids counts were dramatically higher in these regions.

FARM AUCTION ~ VINCENT SCHMOECKEL ~ RETIREMENT AUCTION SATURDAY, SEPTEMBER 10, 2016 AT 10 A.M. Registration at 9:30 A.M. 35 miles south of Malta, Mt. on Hwy 191

Lunch Provided by DalRena's. Signs Will Be Posted!



rubber, air condition, 8219 hrs.
Very good.
John Deere 5020 Tractor w/cab
w/tot. Runs good.
1950 John Deere A tractor w/loader
Very good shape, runs good.
Old John Deere Tractor A or B parts,
w/narrow front end.
John Deere 5020 parts/tractor
Ford Field 9480 Tractor, duels cah.
6288 hrs 1-3-4 trans., 3 ranges, 350
hp. Very good cond.
Fordson Ferguson Tractor, 4 spd,
good rubber.
Versatile 42tt Grain Drills 12" w/ hitch
(six)

Versatile 42ft Grain Drills 12 w mode, (six)
Flexi-coil 42ft Cultivator willoater hitch, writinger harrows, wildos of extra hitch, writinger harrows, wildos of extra Frigstad Cultivator 42ft, Good cond.
Versatile Noble 2000 grain drills, 35ft witransports. Very good shape.
Versatile Noble drills (five) old/parts Micland Manufacturing Co. tandem disc 36', 20' disc's in very good cond. Drill Filis (three) one -24ft, two - 16ft Case Cable Cultivator Anderson Rock Picker reel type Old Rock Picker (works)









Tractor

Case IH Dx60 649 hrs, w/Case L360 header, 7ft bucket, front wheel assist, pto, 3pt hitch. Like new. State of the control of the cont

Grains Lifts to put bins up (four)
 Bin Lifter- setup grain bins
 Hoper (four)
 Grain Dryers (two)
 Tractor Chains

* Tractor Chains
* Truck rear end
* Carryall Model M Soraper 5 yard,
convented to hydraulic, Ser. # \$29213-MA
* Cat Soraper 1 yard
* Antique Road Grader
* 3pt Mower
* 3pt Blow
* 3pt Blade
* 3pt Company Mixer

- spt Plow
- spt Blade
- spt Cement Mixer
- spt Tool Bar
- Dump Rake horse drawn
- Old Corn Planter
- McCormick horse mower
- 1968 Ford Mercury
- 1976 Chevy Tandem axel, 5-4 spd
- axel, new heads, new carburetor,
new motor 366 eng, C65 24ft box
- hoist, 16-2 or Jubber, Very good shape.
- 1976 GMC 6000 V8, 18ft bed
- hoist, 5-7 - 350 V8, single axie,
- 320 trans. Very good.
- 1994 Chevy 2500, 5 spd diesel motor
- 6.5, 4x4, wFYS sprayer, 8hp Honda
- motor, 60ft boom sprayer, 400 gal,
- foam marker
- Chevy Pickin Custer Deliver States

wielectric wench, 350 eng. 4x4 auto trans. C 50 Chevy 350 eng., 4-2 trans., 18ft box hoist Old GMC truck 16ft bed hoist/parts. Old Chevy truck/parts and Schores built 18 ft blue Car Hauler/trailer Lots of Parts and Schore hors.

Lots of Parts and Scrap Iron
Case 800 Combine/scrap iron
Culverts 12" (two)

Fordson Ferguson Tractor

Fuel Tanks 500 gal. w/stands (two)
Fuel Tank 300 gal.
Gas Motor 5 hp
Large Electric Motor. Runs good.
Water Tank 1500 gal.
Spray Tank 1500 gal.
Spray Tank 300 gal.
Honda Pump 2
Water Pump 2hp gas power w/hoses.
Fargo Boxes
Fargo Box

Fordson Ferguson Tracto

Old Rock Picker (works)
 Grain Auger 54ft 8" pto. Good cond.
 Grain Augers (three older)



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In 2015, another trip was made by into Saskatchewan to collect two different species of parasitoids know to be active on the wheat midge (Euxestonotus error and Platygaster tuberosula). Wheat heads containing the parasitoids were brought back to the Western Triangle Agricultural Research Center (WTARC) in Conrad for rearing and the eventual release of these new parasitoids in July of 2016.

At the same time, sweep net surveys conducted during 2015 in Flathead County found that one of these parasitoids was already present. Euxestonotus error was identified at eight different sights in Flathead County. This indicates that these other parasitoid species should survive and multiply in Montana and provide additional help in managing the wheat midge.

The MSU Wheat Midge Biological Control Team members include Brooke Bohannon, NWARC, Dr. Erik Echegaray, NWARC, Dr. Gadi VP Reddy, WTARC, Conrad, Dr. Govinda Shrestha, WTARC, Dr. Bob Stou-gaard, NWARC and Dan Picard, WTARC. The Montana Wheat and Barley committee has provided support for this project. For more information on the biological control program or wheat midge contact any of the team members at WTARC (406-278-7707) or NWARC (406-755-4303).