



2017 Montana-Alberta Cup Boys Team
Captain Joe Rossman, Jarek Shepard, Rylan Perriman, Bucky Crippen, Jack Thorsen, Braxton Humphrey, Carson Hackman

Conrad ARC to host 2018 Western Regional Meeting

By Gadi V.P. Reddy, Ph.D.

Professor Dr. Gadi V.P.Reddy was selected as the Chair for the forthcoming multistate meeting, W4185 Biological Control in Western United States, to be organized and held in Montana on October 10-12, 2018 (<http://ucanr.edu/sites/W2185/Officers/>).

Dr. Reddy and the team members will work on identifying the meeting location from the list of places in Montana, such as Great Falls, Whitefish, Kalispell, and Polson. Dr. Reddy will present details about the listed locations at the 2017 multistate meeting to be held in Riverside, CA, on October 3-5, thus enabling the larger group members to select the location for the 2018 meeting. Traditionally, 100–120 scientists from the US, France and Canada have attended this meeting.

Although pesticides still play a key role in managing pestiferous insects and mites, sustainable

pest management tactics and techniques are becoming highly relevant today because of their cost effectiveness and environmental safety. One of such sustainable pest management programs working effectively in Montana State is biological control and it falls within the ambit of IPM. For that matter, in nature, insect populations are suppressed by naturally occurring organisms such as pathogenic microbes (e.g., bacteria and fungi), and nematodes, further to predatory and parasitic organisms that feed on insects and mites.

Presently three wide-ranging, and to a certain extent, complementing methods of biological management are practiced: the most popular classical biological management technique, viz., introduction of established natural enemies from locations they live naturally into new environments, further to conservation and augmentative biological management techniques.

The conservation biological management tactic is perhaps the most significant among the available biological management practices, which is attractive to farmers. Insect natural enemies come about in all production systems, from the terrace garden to the commercial field.

In the classical biological management practice, the introduction of a potential natural enemy sourced from a foreign landscape takes place. Once the natural enemy is established to be effective in regulating populations of the pestiferous arthropods, then it passed through an intensive quarantine process to ensure that no undesirable organism, which can turn out to be a nuisance in later time, is

introduced. The organisms found useful are reared in large numbers and released in the grower's field after intensive cross checking on the host relations of the introduced organism (e.g., Wapshere's centrifugal phylogenetic testing model).

Follow-up monitoring studies are conducted to determine whether the selected natural enemy establishes effectively at the release site, and to assess long-term benefits of its presence.

The augmentative biological control involves the additional release of insect natural enemies sometimes including generalist predatory and parasitic arthropods. Reasonably limited natural enemies can be released either at one critical time of the season or throughout the year (inoculative release) or huge numbers may be released (inundative release).

Biological control program has been successfully implemented in Montana for the control insect and weed species for many years.

Since 2012, Western Triangle Agricultural Research Center in Conrad has been actively introducing appropriate natural enemies for various pestiferous insects.

For example, the parasitoid, *Macroglenes penetrans*, which parasitizes the wheat midge (*Sitodiplosis mosellana*) has been introduced in Montana in 2014. Populations of *M. penetrans* are well established presently in the wheat-midge-infested spring wheat fields of Montana. Recently two additional parasitoids, viz., *Euxestonotus error* and *Platygaster tuberosula* have been released in 2016.

The Entomology/Insect Ecology team has been working

actively on monitoring the establishment of these parasitoids. In addition, role of wheat midge predators (e.g., different species of carabid beetles) on controlling wheat midge are being explored in laboratory and field conditions in Conrad. *Bracon cephi* and *B. lissogaster*, parasitoids of wheat stem sawfly (*Cephus cinctus*, Hymenoptera: Cephidae). *Bathyleptes* spp., alfalfa weevil parasitoids are known to occur in Montana.

Researchers working on different aspects of biological management in the Western US (and in other landscapes including similar cropping systems, and therefore similar pestiferous insect and mite problems) will meet every year to share their findings and to discuss new technologies and methods, and also identify new areas for future research. By tradition, this meeting will be held every year in the one of the Western States of the US.

The Conrad Agricultural Research Center of the Montana State University is pleased to announce its leadership and participation in convening the 2018 meeting, which should result in useful and productive outcomes for the Montana landscape.

STOCKMAN BANK
CONRAD

Thank You!

for purchasing my steer,
Humphrey and supporting 4-H.

Riley Larson, Sandhockets 4-H Club

Thank You!

So-Lo Air

for purchasing my 4-H hog,
Buckwheat and for supporting 4-H

Sadie Vermulm, 4 Leaf Clovers 4-H

indobserv@3rivers.net

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Weather Report

Date	High	Low	Precip.
8/15 T	77	42	
8/16 W	82	47	
8/17 T	81	54	
8/18 F	87	51	
8/19 S	74	50	
8/20 S	76	42	
8/21 M	75	49	

Total precipitation for year-to-date
YTD: 8.65
Observations are taken for the 24 hours
ending at 6 p.m. on the date indicated.

DRYFORK
AG

Thank you for purchasing
my 4-H Hog,
named Pal.

Payton Vermulm 4 Leaf Clovers 4-H

Administrative Deputy position approved

On Aug. 16, the Pondera County Commissioners met, and:

Commissioner Tom Kuka moved and Commissioner Dale Seifert seconded to approve the job description for an Administrative Deputy for the Sheriff Department.

The position is a newly created position; salary will be paid by the Sheriff Department. The motion carried.

You got any
Who Dat pictures?

Every year in Montana, money and other personal assets go unclaimed. You or someone you know may be one of the owners of that unclaimed property held in trust by the state.

Perhaps you forgot about a checking or savings account, let a check go uncashed, or lost track of an old gift certificate, stock or safety deposit box. It's worth checking for your name on our list of property reported to the State of Montana from July 1, 2016 through June 30, 2017.

We've listed property in this publication by the county where the apparent owner's last known address was reported. If you find your name on this list, go to revenue.mt.gov, click on the **Find Your Unclaimed Property** banner and then click on **Click for Cash**. Click on **Search for Unclaimed Cash** to begin your free online search. This online service will also help you find and claim property reported to us before July 1, 2016. **Note:** This is a free online search! Some businesses offer help to find unclaimed property, but require a payment before you can discover if you have any property. While these are legal businesses, it is unnecessary to pay to reclaim your property.

For more information, call the Montana Department of Revenue at (406) 444-6900.

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ARNST, GARY	19055 VALIER HWY	VALIER	HAWORTH, TRAVIS	PO BOX 102	DUPUYER
BAKER, FERNE	PO BOX 1507	CONRAD	HENDERSON, IRIS	1000 4TH AVE SW	CONRAD
BARTLETT, JEAN	205 N WISCONSIN	CONRAD	JELLE, JAMES	PO BOX 43	BRADY
BITNEY, CHRIS	702 S ILLINOIS	CONRAD	KOVATCH, C	PO BOX 366	BRADY
BITNEY, KACEY	702 S ILLINOIS	CONRAD	LIGHTNER, DOREEN	5744 DRY FORKS	CONRAD
BITNEY, KATHRYN	702 S ILLINOIS	CONRAD	MCKECHNIE, JACK	BOX 873	CONRAD
BOUCHER, BERNICE	2376 DERBY DR	CONRAD	OVERCAST, JOANN	701 S ILLINOIS ST	CONRAD
BROWN, ANGELA	807 1ST AVE N W	CONRAD	PEARSON, JEREMIAH	3994 PIONEER RD	CONRAD
BROWN, BARBARA	BOX 772	CONRAD	PHILLIPS, CAROLYN	109 S VIRGINIA ST	CONRAD
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CONYERS, LEAH	23831 BRADY RD E	BRADY	RATZBURG, JAYNE	2119 LEDGER RD	LEDGER
CRESCZYK, ROBERT	609 IOWA	CONRAD	RUTHERFORD, DUANE	PO BOX 211	HRT BUTTE
CURRY, LEANNE	12 N IOWA ST	CONRAD	RUTHERFORD, JESS	PO BOX 262	HRT BUTTE
DEHAAN, KYLE	701 S ILLINOIS ST	CONRAD	SCHNEIDER, M	14 N WISCONSIN	CONRAD
DUGAN, MARY	1659 STORDAHL	CONRAD	SKINNER, BRIAN	101 S DELAWARE	CONRAD
DUGAN, NOLAN	320 S MICHIGAN	CONRAD	SOSA, LORENZO	724 JOHNSON RNCH	CONRAD
ERICKSON, ED	155 EVERGREEN	CONRAD	STIFEL, RICHARD	BOX 514	VALIER
FARNELL, JONATHAN	PO BOX 21	BRADY	STINGER, BRANT	409 S WISCONSIN	CONRAD
FOOTE, DAROLD	PO BOX 28	HRT BUTTE	TOWNSEND, COREY	1013 4TH AVE SW	CONRAD
GARDIPEE, DENISE	309 S MINNESOTA	CONRAD	VANNOSDOLL, DEBRA	215 S 28TH ST	BRADY
GEMAR, MOLLEE	2 4TH AVE SE	CONRAD	WATSON, BRANDON	415 S MICHIGAN	CONRAD
GIANARELLI, TODD	317 5TH AVE SW	CONRAD	WELLS, MELTON	PO BOX 33	HRT BUTTE
			WERGIN, JOHN	215 N MAIN ST	CONRAD