68th ANNUAL CONFERENCE OF THE

UTAH MOSQUITO ABATEMENT ASSOCIATION



Provo Marriott Hotel & Conference Center 101 West 100 North, Provo, Utah 84601

October 4 - 6, 2015

PROGRAM SUMMARY

Sunday, October 4, 2015

3:00 pm - 6:30 pm Registration

8:00 am - 7:00 pm Exhibitor Setup

Arches/Canyon

6:30 pm UMAA Board Meeting

Birch

8:00 pm President's Reception

Arches/Canyon

Monday, October 5, 2015

7:30 am Registration

8:30 am Plenary Session

Zion/Bryce

10:00 am Break

10:20 am Door Prize Drawing

10:30 am General Session

Zion/Bryce

Noon Lunch – Arches/Canyon

1:30 pm General Session

Zion/Bryce

3:00 pm Break

3:20 pm Door Prize Drawing

3:30 pm General Session

Zion/Bryce

5:15 pm Adjourn

7:00 pm Banquet – Arches/Canyon

Tuesday, October 6, 2015

8:30 am General Session

Zion

8:30 am Trustee Session

Bryce

10:05 am Break

10:20 am Door Prize Drawing

Zion

10:30 am General Session

Zion

10:30 am Trustee Session

Bryce

12:00 pm

Adjourn

12:15 pm

UMAA Annual Business Meeting

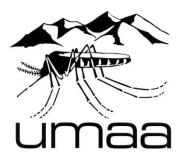
Birch

WELCOME TO THE

68th

ANNUAL CONFERENCE

OF THE



UTAH MOSQUITO ABATEMENT ASSOCIATION

CONFERENCE HOST

Utah County Mosquito Abatement Robert Mower, Manager

MEETING LOCATION

Provo Marriott Conference Center 101 West 100 North Provo, Utah 84601 October 4-6, 2015

UMAA OFFICERS AND BOARD OF DIRECTORS

President

Bryan Stephens

President-Elect

Bill Cox

Vice-President

Richard Rigby

Secretary/Treasurer

Eldon Rowley

Past President Eldon Rowley

Executive Director

Randel Sessions

Directors

Sean Amodt Joe Archer Ryan Arkoudas **Brian Hougarrd**

Scott Bradshaw

Bill Cox

Sammie Dickson Gary Hatch

Mike Johnson Ryan Lusty

Robert Mower

Garv Nielson

Robert Phillips

Brian Raymond Richard Rigby

Kirk Robbins

Chris Rowley

Eldon Rowley

Mike Seelv

Randel Sessions

Mark Stewart

Bryan Stephens Terrie Wierenga

Kay Weight

Cory Worwood

UMAA COMMITTEE CHAIRMEN

Auditing

Richard Rigby

Awards

Eldon Rowley

Computer/Data

Processing

Gary Hatch

Encephalitis Surveillance

Garv Hatch

Environmental Impact

Kirk Robbins

Legislative & Resolutions

Bill Cox

Local Arrangements

Robert Mower

Newsletter

Randel Sessions

Nominating

Eldon Rowley

Operational

Brian Hougaard

Pesticides

Sammie Dickson

Policy, Finance & Bylaws

Richard Rigby

Program Bill Cox

Publications Sammie L. Dickson

Public Education Gary Hatch Mosquito Control-Fish & Wildlife Mgmt. Coordination Kirk Robbins

Workshop Sammie L. Dickson

Monday Morning October 5, 2015 Plenary Session Zion/Bryce

	Moderator: Bryan Stephens, UMAA President
8:30	Call to Order & Announcements, Bryan Stephens , UMAA President and Manager, Summit Mosquito Abatement District, Wanship, UT
8:40	Welcome to the 68 th Annual Meeting in Provo, Utah, Ralph L. Clegg, EHS, MPA , Interim Executive Director, Utah County Health Department
8:50	Welcome to the Provo Marriott Conference Center: John Garfield
8:55	Introduction of Keynote Speaker: Bill Cox , UMAA President-Elect, and Manager, Rich County Mosquito Abatement
9:00	Keynote Address: West Nile Virus in Western North America - An update on Recent Research, William K. Reisen PhD, Professor Emeritus, Center for Vectorborne Diseases, School of Veterinary Medicine, University of California Davis, CA
10:00	Break Door Prize Drawing @ 10:20
10:30	USDA Mosquito Control Product Research and an Update on the AMCA, Kenneth J. Linthicum, PhD , BCE , Center for Medical, Agricultural & Veterinary Entomology, Gainesville, Florida
11:00	Thinking Outside the Tube: ADAM and Other Strategies to Combat <i>Aedes aegypti</i> , Steve Mulligan and Jodi Holeman, Consolidated Mosquito Abatement District, Selma, CA
11:15	Nominations: Eldon Rowley, Manager, West Millard Mosquito Abatement District, Delta, UT
11:20	Efficacy of Fungi for Biocontrol of Adult Mosquitoes in Underground Storm Drainage Systems in the Coachella Valley, Gregory S. White, PhD , Vector Ecologist, Coachella Valley Mosquito and Vector Control District, Indio, CA

Aerial Larvicide Bucket Test, Jon Van Tassell, Joel

Shegrud, Gary Hatch, Mosquito Abatement District - Davis

11:35

- 11:50 Prevalence of Water In Catch Basins in Davis County, **Jon Van Tassell**, Joel Shegrud, Gary Hatch, Mosquito Abatement District Davis
- 12:05 **Lunch** Arches/Canyon

Monday Afternoon

October 5, 2015 General Session Zion/Bryce

Moderator: Bill Cox, UMAA President-Elect

- 1:30 DeltaGard Season One, What We've Learned, Gordon Morrison, Bayer Environmental Science, Research Triangle Park, NC
- 1:45 Update of Utah County Mosquito App for Monitoring Fieldwork, New Dashboard and Trap Features, **David Henrie** and Darin Sleight, Utah County GIS Programmers
- 2:00 An Examination of Mosquito Activity in Weber County, Utah Using a Collection Bottle Rotator Trap, Ryan Arkoudas, Manager, Weber MAD
- 2:15 Precision Vision UAV Capabilities and FAA Status & Outlook, William "Bill" Reynolds, Leading Edge Associates
- 2:30 Delta, Delta, Delta, May We Help ya', Help ya'!: Goings on at the Delta County Mosquito Control District No. 1, Steve DeFeyter, Manager, Delta County Mosquito Control Program
- 2:45 Organic vs Green Mosquito Control Methods, Blaine Oakeson, Regional Sales Manager, Central Life Sciences
- 3:00 **Break**Door Prize Drawing @ 3:20
- 3:30 Utah County MAD, Past to Present, Robert C. Mower, Manager, Utah County Health Department, Mosquito Abatement Division
- 3:45 Jumping in With Both Feet: Weber MAD's Indoor Fish Tanks, Ryan Arkoudas, Manager, Weber Mosquito Abatement District, Ogden, Utah
- 4:00 The Effect of Thermal Inversions on Droplet
 Penetration and Characteristics of Dibrom Adulticide
 in a Desert Environment, **Ary Faraji PhD**, Assistant
 Manager and Biologist, Salt Lake City MAD

4:15	Droplet Density and Size Reduction Over Time,
	Nelson Long, Intern, Salt Lake City MAD

- 4:30 Rebuilding a Program from the Perspective of a New Manager, **Mark Stewart**, Manager, Sevier County Mosquito Abatement Department
- 4:45 Efforts to Enhance Efficiency and Efficacy of Control of Larval Mosquitoes in Storm Water Catch Basins, Eric Gardner, Brian Hougaard South Salt Lake Valley Mosquito Abatement District
- 5:00 Adjourn

Monday Evening AWARDS BANQUET

7:00 PM

Arches/Canyon

Tuesday Morning October 6, 2015

General Session Zion

Moderator: Richard Rigby, UMAA Vice President

IV	loderator. Richard Rigby, UNIAA Vice President
8:30	New and Resurgent Mosquito-borne Arbovirus Problems in Western North America, William K. Reisen PhD , Professor Emeritus, Center for Vectorborne Diseases, School of Veterinary Medicine, University of California Davis, CA
9:15	Identification of Mosquito Blood Meals Using High-Resolution Melt PCR, Brad York , Tyler Floyd , Darinka Zapata, Kathryn Allred, Kaitlyn Bunker, Curtis Grahm, Brett Smith, Janice Sugiyama, Ph.D., Biotechnology Research, Utah Valley University
9:35	Pollinators Update, Gordon Morrison , Bayer Environmental Science, Research Triangle Park, NC
9:50	Merus 2.0 Field Trial at West Millard MAD, Jake Hartle , Clarke and Eldon Rowley, Manager West Millard MAD
10:05	Break Door Prize Drawing @ 10:20
10:30	Technology Update – New Features, Enhancements and Services for Mosquito Control, Ryan Pierson , Electronic Data Solutions
10:45	The Ayatolla of Mosquto Controlla: Current State of Mosquito Research and Control in Iran, Ary Faraji , Assistant Manager, Salt Lake City MAD
11:00	West Nile Virus and Plague Update: Utah and the United States, 2015, JoDee Summers Baker, MPH Epidemiologist, Bureau of Epidemiology, Utah Department of Health
11:15	FourStar CRG: Getting the Hard-To-Reach Areas, Scott Bradshaw , Manager Tooele Valley Mosquito Abatement District
11:30	Responding to a Chemophobic World, T.J. Shelby, Industry Specialist, Univar Environmental Sciences
11:45	Vendor Introductions & Presentations, Each vendor will have up to two minutes to introduce themselves, their company and products

themselves, their company and products

12:00

Adjourn

Tuesday Morning

October 6, 2015

Trustee's Session

Bryce

Moderator: Bryan Stephens, UMAA President

8:30 Trustee Training—Part 1: Governance (Roundtable Discussion)

LeGrand Bitter, Executive Director, Utah Association of Special Districts Sammie Dickson, PhD, Manager, Salt Lake City Mosquito Abatement District Ryan Roberts, Supervisor, Local Government Division, State Auditor's Office

10:05 Break

Door Prize Drawing @ 10:20 in Zion Meeting Room

10:30 Trustee Training—Part 2: Financial (Roundtable Discussion)

LeGrand Bitter, Executive Director, Utah Association of Special Districts Sammie Dickson, PhD, Manager, Salt Lake City Mosquito Abatement District Ryan Roberts, Supervisor, Local Government Division, State Auditor's Office

12:00 Adjourn

12:15 UMAA Annual Business Meeting, Birch

2015 UMAA SUSTAINING MEMBERS

ADAPCO INC.

Gale Jirik 1851 County Road 671 Rye, CO 81069 866-845-2550 O 505-366-7987 M gjirik@myadapco.com

AMVAC

Peter Connelly 751 West Ocracoke Sq. SW Vero Beach, FL 32968 (772) 563-0606 peterc@amvac-chemical.com

BAYER

Gordon Morrison 2 T.W. Alexander Drive Research Triangle Park, NC 27516 (919) 549-2535 gordon.morrison@bayer.com

CENTRAL LIFE SCIENCES, INC.

Blaine Oakeson 1091 N 3500 W Marriott-Slaterville, UT, 84404 (801) 389-0867 M boakeson@central.com

CLARKE

Drew Hunter 1278 29th CT NW Salem, OR, 97304 (503) 505-4197 M dhunt@clarke.com

ELECTRONIC DATA SOLUTIONS

Ryan Pierson PO Box 31 Jerome, ID, 83338 (208) 324-8006 (208) 358-1142 M elecdata@elecdata.com

GIL MANUFACTURING, INC.

Ted Gilreath
P.O. Box 242725
Montgomery, AL, 36117
(334) 284-8111
gilmosquito@charter.net

LEADING EDGE ASSOCIATES, INC.

Bill Reynolds 702 Tulip Tree Ct Fletcher, NC 28732 (828) 246-2111 mreynolds@leateam.com

UNIVAR ENVIRONMENTAL SCIENCES

TJ Shelby 650 W. 800 S. Salt Lake City, UT 84104-1026 (801) 884-8579 M tj.shelby@univarusa.com

UTAH LOCAL GOVERNMENTS TRUST

Ryan Hatch 55 South Hwy 89 North Salt Lake, UT 84054-2504 (801) 936-6400 (800) 748-4440 ryan@utahtrust.gov

VALENT BIOSCIENCES

Stephanie Whitman 1450 North 45th Street Laramie, WY 82072 (307) 721-4335 (307) 399-1732 M Stephanie.Whitman@valent.com

VECTOR DISEASE CONTROL, LLC (VDCI)

Malcom Williams 1320 Brookwood Dr. Suite H Little Rock AR 72202 (800) 413-4445 mwilliams@vdci.net

SUSTAINING MEMBERS SPONSORING SPECIAL FUNCTIONS

PRESIDENT'S RECEPTION

VALENT BIOSCIENCES

LUNCHEON

CLARKE

UTAH LOCAL GOVERNMENTS TRUST
CENTRAL LIFE SCIENCES, INC.

BAYER ENVIRONMENTAL SCIENCE

AMVAC

BREAKS

ADAPCO

UNIVAR ENVIRONMENTAL SCIENCES

VECTOR DISEASE CONTROL INTERNATIONAL

PRINTING OF PROGRAM & AWARDS

AMVAC

DOOR PRIZES

To Be Announced When Prizes Are Given Out NOTES

NOTES

Past Presidents

Don M. Rees	1982	Elmer Kingsford	
Don M. Rees	1983	Robert Brand	
Don M. Rees	1984	Steven Romney	
Don M. Rees	1985	James Nielsen	
O. W. Young	1986	Lewis Marrott	
Theodore Schoenfeld	1987	Kenneth Minson	
O.C. Finley	1988	Sammie Dickson	
Howard Widdison	1989	Kay Weight	
Delore Nichols	1990	Lewis Nielsen	
Jay E. Graham	1991	Doug Brown	
Lewis Nielsen	1992	John Jaussi	
Lewis Fronk	1993	Keith Wagstaff	
Karl Josephson	1994	Evan Lusty	
Morris Swapp	1995	Bruce Bennett	
Glen C. Collett	1996	Steven Romney	
George F. Knowlton	1997	Gary Hatch	
Henry Beckstead	1998	Dennis Kiyoguchi	
D. Elden Beck	1999	Gordon Wheeler	
Lewis Fronk	2000	Randel Sessions	
Larry Nielsen	2001	Robert Brand	
Kendall Sedgewick	2002	Brian Hougaard	
Karl Josephson	2003	Val Bowlden	
William Wright	2004	Eldon Rowley	
Reed Roberts	2005	Kirk Robbins	
Lee Kay	2006	Ryan Arkoudas	
Wilford Egbert	2007	Mike Oldham	
Carl D. Clark	2008	Sammie Dickson	
Don M. Rees	2009	Robert Mower	
Earl Jenne	2010	John Johnson	
Larry Nielsen	2011	Ryan Lusty	
Evan Lusty	2012	Tyson Packer	
Keith Wagstaff	2013	Mario Boisvert	
Wanless Southwick	2014	Eldon Rowley	
Dennis Hunter			
	Don M. Rees Don M. Rees Don M. Rees O. W. Young Theodore Schoenfeld O.C. Finley Howard Widdison Delore Nichols Jay E. Graham Lewis Nielsen Lewis Fronk Karl Josephson Morris Swapp Glen C. Collett George F. Knowlton Henry Beckstead D. Elden Beck Lewis Fronk Larry Nielsen Kendall Sedgewick Karl Josephson William Wright Reed Roberts Lee Kay Wilford Egbert Carl D. Clark Don M. Rees Earl Jenne Larry Nielsen Evan Lusty Keith Wagstaff Wanless Southwick	Don M. Rees 1983 Don M. Rees 1984 Don M. Rees 1985 O. W. Young 1986 Theodore Schoenfeld 1987 O.C. Finley 1988 Howard Widdison 1989 Delore Nichols 1990 Jay E. Graham 1991 Lewis Nielsen 1992 Lewis Fronk 1993 Karl Josephson 1994 Morris Swapp 1995 Glen C. Collett 1996 George F. Knowlton 1997 Henry Beckstead 1998 D. Elden Beck 1999 Lewis Fronk 2000 Larry Nielsen 2001 Kendall Sedgewick 2002 Karl Josephson 2003 William Wright 2004 Reed Roberts 2005 Lee Kay 2006 Wilford Egbert 2007 Carl D. Clark 2008 Don M. Rees 2009 Earl Jenne 2010 Larry Ni	