



BOULDER COUNTY COOPERATIVE MOSQUITO CONTROL PROGRAM

MONTHLY REPORT: JUNE 30, 2008

COLORADO MOSQUITO CONTROL, INC.

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New & Improved Interactive Data Dashboards Now Online

New Era in Program Information Dissemination Improves

The basics of effective and environmentally sound mosquito control have not changed in nearly three decades. There is currently no substitute for getting out there, getting your feet wet and doing thorough larval inspections, targeted bio-rational larvicide applications and surveillance and targeted control against adult mosquitoes. What has changed is the technology behind the scenes. CMC has always believed that the appropriate use of technology can have a significant effect on the efficiency and effectiveness of our control programs. We have proven this with the development and implementation of our CMMS Database System. Now CMC is the first to bring state-of-the-art information dashboard technology to mosquito control.

You may remember that CMC first presented the concept in a few graphics two seasons ago. Over the past year CMC has combined those graphs and more into a refined and complete Dashboard System. This unique Dashboard will now allow instant access to the most important facets of your Mosquito Control Program's *Current and Historical* Data, all interactively! Dashboards are updated live as data is entered into our

CMMS database. This means that you can select the data that you want, in the format and time frame that you are interested in and be assured you have the latest information available. It's a little difficult to describe, but it's very easy to use. To make sure that dashboards work consistently and are widely available CMC hosts the dashboards live on our website.



Please make sure that you have the latest Adobe Flash Player installed on your computer. You can download the update free at:

<http://www.adobe.com/downloads/>

Visit your Dashboard now at the following address:

<http://www.comosquitocontrol.com/boulderco.html>

2008 Boulder
County Cooperating
Municipalities &
Other Entities:

Boulder County
MCD
City of Lafayette
City of Longmont
City of Louisville
Town of Superior
Boulder County
Recycling Center

Wear Your Repellent!

- CDC recently came out with new repellent recommendations, visit our website for a link & more information.

- Studies have shown that most human cases of WNV were preventable. Most people infected did not take precautions such as wearing long sleeves and using repellents.

- The most effective repellents contain 10%-35% DEET (N,N-diethyl-meta-toluamide).

- DEET in high concentrations, above 50%, provides no additional protection

Larval Control Operations Continue at Full Speed

Early Rain, Hot Weather Keep Mosquito Populations on the Rise

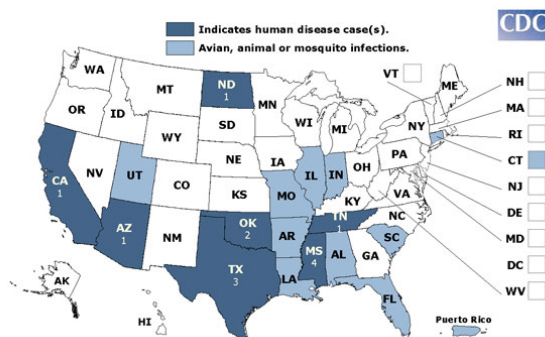
Cold-front associated rains filled many mosquito breeding sites in the early part of the month. Additionally the start of the irrigation season added additional water to the landscape. This influx of water and subsequent warm conditions lead to the rapid rise of flood-water populations. Overall, however, *Culex* numbers have been relatively low as compared to last year. As we enter July, floodwater larval mosquito populations will have peaked and decline in most areas (except for those being flood irrigated). However *Culex* (disease vector) mosquitoes are expected to rise as many sites are now perfect ovi-position and larval *Culex* habitat; still relatively full of water with warm water temperatures and have turned stagnant with high organic content.

Larval site inspections and treatments continued at a rapid pace through the month. Field technicians have been targeting historically active sites selected by CMC's Comprehensive Mosquito Management System (CMMS) targeting system.

Flood irrigation in July will also add spikes in both larval *Aedes* and *Culex* mosquitoes. Please see the attached Larval Data Summary for specific results year to date.

First Human West Nile Virus Cases Reported

The first Colorado human cases of West Nile Virus (WNV) were reported on June 27th. One case was reported from each Boulder and Logan Counties. The time period for human incidence is consistent with previous years.



2008 West Nile Virus Activity in the United States (Reported to CDC as of June 24, 2008)

No one knows if West Nile will strike in large numbers again in 2008 like it did in 2007. Current hot and dry weather patterns are conducive to *Culex tarsalis* development; however, overall numbers of WNV species seen in our surveillance traps has been low. However, with hot temperatures expected to continue, the peak of *Culex tarsalis* season is yet to come in July. No positive mosquito test pools have been detected to date

CMC continues to work closely with the County Health Department, Colorado Dept. of Public Health and Environment and CDC in Fort Collins in the sentinel surveillance of WNV and other potential mosquito-borne diseases

Other areas of the country have also begun to show human WNV activity. To date 15 human cases have been identified including the 2 from Colorado.

Mosquito Population and Disease Surveillance

Colorado Mosquito Control, Inc. (CMC) began full-scale CDC light trap and limited gravid trap surveillance operations on June 1 in most areas. Right from the start weather conditions proved challenging. Numerous trap line operations were cancelled or ruined by rainy, windy and even cold conditions early in the month. Conditions improved by mid-June with hot weather bringing high numbers of flood-water *Aedes-Ocleratus*. Numbers of potential disease vector mosquitoes, *Culex*, however, have remained low comprising only 4% of total trapped mosquitoes as compared to 26% in 2007. CMC pools up and submits to CDPHE hundreds of *Culex* mosquitoes daily for WNV and other mosquito-borne disease testing. See the attached Trap Data Reports and don't forget to visit your data dashboard!

Adult Control Operations

With large numbers of flood-water and mosquitoes, targeted adult mosquito control applications began in some areas with improved weather conditions in mid-June.

Please see the attached Adulticide Application Report for your area for specifics.



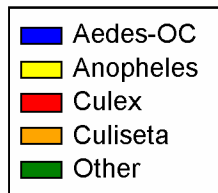
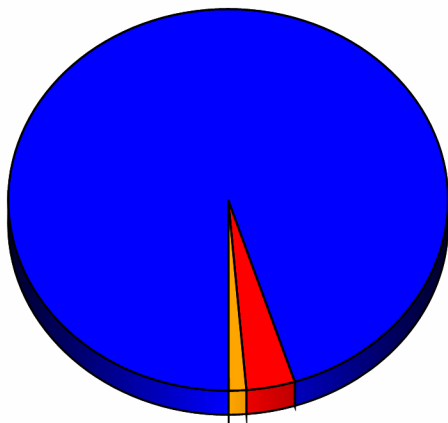
Larvicide Data Summary

	Total Site Inspections	No. Wet Sites	Percentage Wet Sites	No Sites Treated	Percentage Breeding*	Total Acres Treated
Boulder County Recycle	5	2	40 %	5	100 %	3.8
Boulder County-MCD	1708	1239	73 %	389	31 %	323.3
Lafayette, City of	103	70	68 %	24	34 %	16.1
Longmont, City of	474	292	62 %	49	17 %	12.5
Louisville, City of	55	37	67 %	10	27 %	8.3
Superior, Town of	126	91	72 %	20	22 %	6.3

* (Sites Treated/Wet Sites)



Species	Total
Aedes (Oc.) dorsalis	368
Aedes (Oc.) flavescens	3
Aedes (Oc.) hexodontus	3
Aedes (Oc.) increpitus	969
Aedes (Oc.) melanimon	3,428
Aedes (Oc.) nigromaculis	6
Aedes (Oc.) trivittatus	2,792
Aedes vexans	17,668
AEOC	25,237
Culiseta inornata	341
CS	341
Culex pipiens	13
Culex salinarius	61
Culex tarsalis	877
CX	951
Coquillettidia perturbans	10
Operational but empty	0
Trap malfunction	0
OTHER	10
TOTAL	26,539



TOTAL	%
25,289	95 %
0	0 %
951	4 %
341	1 %
10	0 %



Customer	Subdiv/Area	Material	Start Time	End Time	Miles	
Boulder County-MCD						
Backpack Barrier						
06/03/2008	GUNBARREL GREEN	Talstar One	12:45:00	13:30:00	1.0	
06/03/2008	CLINE TROUT FARM	Talstar One	10:30:00	12:15:00	3.5	
06/10/2008	95TH LEFTHAND CREEK	Talstar One	10:35:00	11:20:00	1.0	
06/13/2008	BRIGADOON GLEN	Talstar One	12:15:00	13:15:00	1.5	
Backpack Barrier					Sum	7.0
					Avg	1.8
					Min	1.0
					Max	3.5
Truck ULV						
06/18/2008	LEFTHAND CREEK	AquaLuer ULV	20:45:00	21:11:00	4.0	
06/18/2008	ANHAWA	AquaLuer ULV	23:41:00	23:58:00	3.0	
06/18/2008	SHANNON ESTATES ETC	AquaLuer ULV	20:11:00	21:09:00	10.0	
06/18/2008	OLD TALE GAPTER ROAD	AquaLuer ULV	21:34:00	21:52:00	3.0	
06/18/2008	WILLIS HEIGHTS	AquaLuer ULV	23:23:00	23:36:00	2.5	
06/18/2008	RED FOX HILLS	AquaLuer ULV	23:12:00	23:30:00	3.0	
06/18/2008	ORANGE ORCHARD	AquaLuer ULV	22:16:00	22:49:00	5.0	
06/25/2008	BURCH LAKE AREA	AquaLuer ULV	22:05:00	22:15:00	1.8	
06/25/2008	SCHLAGEL	AquaLuer ULV	20:38:00	20:48:00	1.5	
06/25/2008	VALMONT ROAD	AquaLuer ULV	22:25:00	22:53:00	5.0	
06/25/2008	VERMILLION TRAIL	AquaLuer ULV	22:32:00	23:04:00	2.9	
06/25/2008	BOWLDER HILLS	AquaLuer ULV	00:14:00	00:32:00	4.0	
06/25/2008	ST VRRAIN ROAD	AquaLuer ULV	21:24:00	21:54:00	5.2	
06/25/2008	ORANGE ORCHARD	AquaLuer ULV	23:12:00	23:57:00	6.0	
06/25/2008	LEFTHAND CREEK	AquaLuer ULV	12:00:00	12:00:00	0.0	
06/26/2008	MARSHALL	AquaLuer ULV	21:28:00	21:49:00	3.0	
06/26/2008	LEFTHAND CREEK	AquaLuer ULV	22:31:00	22:43:00	1.0	
Truck ULV					Sum	60.9
					Avg	3.6
					Min	0.0
					Max	10.0
Lafayette, City of						
Truck ULV						
06/17/2008	BLUE HERON AREA	AquaLuer ULV	20:35:00	21:29:00	11.0	
06/24/2008	WANEKA LAKE PARK	AquaLuer ULV	21:25:00	21:48:00	2.0	
Truck ULV					Sum	13.0
					Avg	6.5
					Min	2.0
					Max	11.0



Adulticide Data

Customer	Subdiv/Area	Material	Start Time	End Time	Miles
Longmont, City of					
Truck ULV					
06/18/2008	JIM HAMM	AquaLuer ULV	23:11:00	23:15:00	1.0
06/25/2008	JIM HAMM POND	AquaLuer ULV	23:12:00	23:22:00	1.5
Truck ULV				Sum	2.5
				Avg	1.3
				Min	1.0
				Max	1.5
Grand Total					83.4