2008 Summary Report
Cereal Leaf Beetle
Economic Impact and Biological Control in Oregon

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Economic Impact

Ag chemical suppliers and growers were surveyed by personal communication to estimate the acreage treated with insecticide to control cereal leaf beetle (CLB), *Oulema melanopus,* and to determine the economic costs associated with pesticide application. Indirect costs to Oregon producers such as commodity certification, yield and/or quality loss are not considered here. The following table shows acres treated to control CLB in Oregon during the last three years:

County	2008 Acres	2007 Acres	2006 Acres
Baker	300	750	1400
Crook	2370	560	477
Deschutes	50	0	125
Jefferson	3811	1544	1235
Malheur	4629	1283	443
Union	200	2100	7944
Wallowa	0	150	1180
Willamette Valley (by location of chemical supplier)			
Benton	1650	200	270
Lane	3000	550	200
Linn	14,630	3270	400
Marion	15,219	1493	1085
Multnomah	0	0	0
Polk	4230	1825	1340
Washington	4436	3700	4250
Yamhill	2822	1716	205
Total Acres Treated for CLB	**57,347**	**19,141**	**20,554**

CLB continues to expand its range outward from infested areas, particularly in central Oregon and the southern Willamette Valley. Lincoln County was designated as infested with CLB in 2008, the first new county since 2003. CLB is now found in 20 Oregon counties.

Spraying for CLB has increased considerably in Oregon in 2008. acres of grain planted increased 6.7% in the state (Oregon Ag statistics). The high price for grain this year and the increased cost of chemicals and fuel combine to increase the economic impact of CLB significantly in 2008.

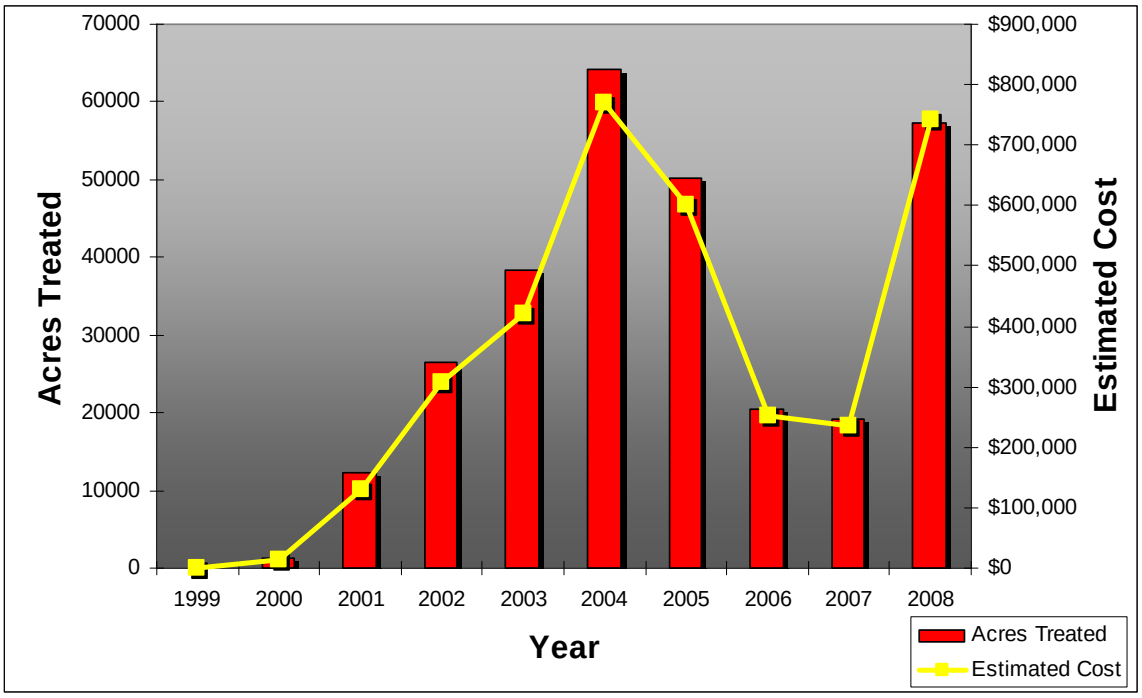
CLB is an economic pest of grain crops, primarily oats, wheat, and barley. However, these figures also include treatment of 300 acres of grass seed, and 1225 acres of sweet corn. The latter was treated to meet California's quarantine requirements. CLB causes more damage to spring grains than winter grains. Many treatments are done in conjunction with fungicide or herbicide applications.

Each of four geographic areas; Malheur County, NE Oregon, Central Oregon, and the Willamette Valley, differ in the timing of CLB activity, which was about two weeks later

than normal this year, as well as the ratio of custom versus private application, the insecticides used, and their costs. Baythroid was the most frequently used chemical . Mustang, Warrior, and Malathion (oats) were also used regularly. Cobalt (new), Lannate, Discipline (corn), and Lorsban were used occasionally.

Costs reported for most of these chemicals range from $4.00-7.00/A, with Cobalt costing $10 and Discipline $20. Application costs run $5.50-8.00/A (custom) for ground application, and $8-10.00/A for aerial. Using a weighted average cost of $6.45/A for the chemical and $6.50/A for the application, **the estimated cost to treat CLB in Oregon this year was $742,644.**

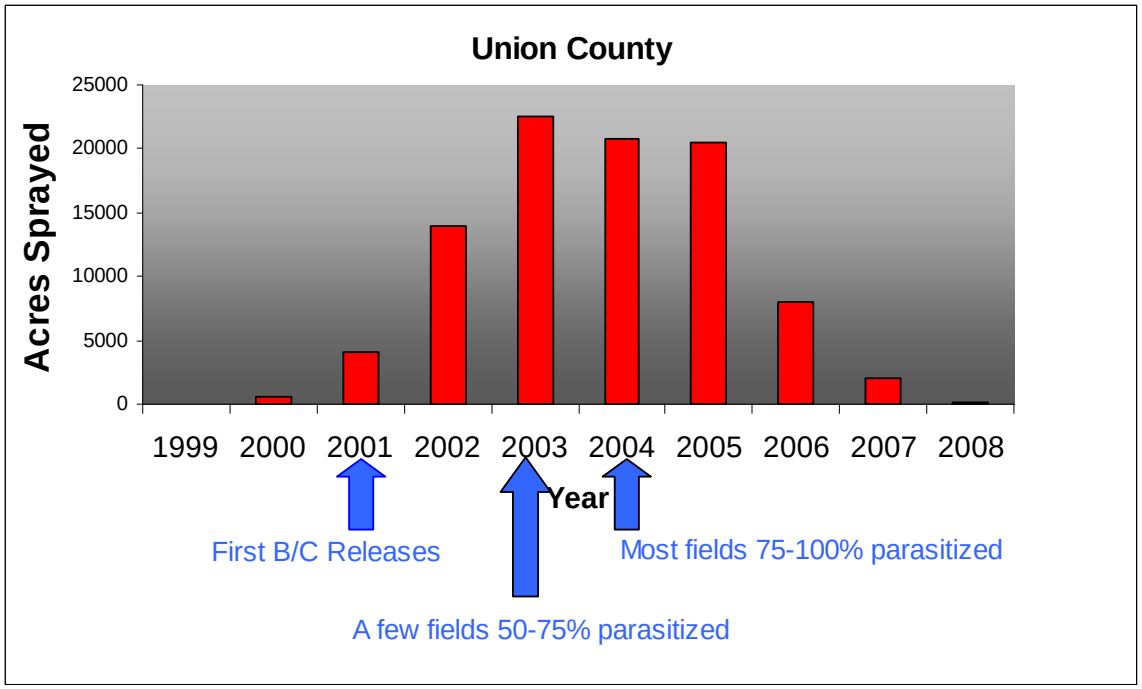
The chart below shows the progression of CLB impact in Oregon.



Biocontrol Program Proving Successful

USDA APHIS, ODA, and OSU Extension have been cooperating in the release of parasitic wasps as natural enemies of CLB since 1999. The CLB larval parasitoid *Tetrastichus julis* is now present in most Oregon counties where CLB has spread. It is well established in NE Oregon and northern Willamette Valley where parasitism rates reach 100%. Parasitoids are collected from these counties for redistribution to other sites in Oregon. This year releases were made in Deschutes and Jefferson counties. Monitoring shows *T. julis* can spread long distances on its own within grain production areas.

In Union and Baker counties larval parasitism has been high since 2006. Growers there have gained confidence that the parasitoids will kill CLB larva before yields are affected. Treated acres are down 99% (to 200 acres sprayed) compared with those of 2003, the peak year for CLB treatments. Experience in Union County indicates *T. julis* can effectively reduce CLB damage below economic levels.



We encourage growers to watch CLB threshold levels carefully, and consult with their extension agents before insecticide applications. If treatment is necessary, growers are encouraged to leave untreated areas to provide refuges for parasitoid survival. If requested, and resources permit, ODA or APHIS personnel can monitor fields for parasitism levels to assist with treatment decisions. Contact us directly or through your OSU Extension Office.

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