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## Chemigating with Callisto March 2010

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**Chemigating with Callisto Survey 2010**  
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**UMass Cranberry Station, E. Wareham, MA**

At the January 2010 Cranberry Management Update meeting, a survey was distributed to find out your experiences with chemigating Callisto in 2009. Approximately 210 growers were in attendance and 84 people returned their surveys (40% response rate). Fifty-three people said they had chemigated Callisto in 2009 and 22 said they had not. Of those who chemigated, 84% used a nonionic surfactant (NIS), 5% used crop oil concentrate (COC), and 11% tried both (N=44). Most people used Activator 90, though a few used Induce or Plyac and one used X77. Most people used the 8 oz/A rate of Callisto (68-72%); 18-24% used 6 oz/A and 8-10% used 4 oz/A of the herbicide.

**How much adjuvant was used?** We then asked you to write down how much adjuvant you used and how good you thought the weed control was when you chemigated Callisto with the adjuvant. For the first application, almost 50% of the respondents reported good or great control (percentages are rounded) when 2 qt/A or less adjuvant was used (Note: a 0.25% v:v rate would have needed 1 qt NIS for every 100 GPA water delivered in the chemigation event or at least 1 gal/A adjuvant if chemigation delivered 400 GPA water). Twenty percent who used 2 qt or less reported control was OK and about 7% said it was marginal.

First Application

<u>Amount used/A</u>	<u>Percentage of responses (N=46)</u>				
	<u>Great</u>	<u>Good</u>	<u>OK</u>	<u>Marginal</u>	<u>Did not work</u>
None	0	6.5	4	0	0
1 qt	9	15	9	6.5	0
1-2 qt	4	15	6.5	0	0
2-3 qt	0	0	0	2	2
4 qt	2	9	6.5	2	0

Although the total number of respondents decreased to 36, very similar results were reported for the second application; 50% of the respondents reported good to great control when using 2 qt/A or less adjuvant.

**What were the target weeds and how was the control?** Next, we asked you to tell us what weeds you were trying to control with the first and second applications and what level of control you got. Many people listed more than one target weed (but generally less than 3). When multiple weeds were listed, only 1 rating score was given. So, when the responses were tallied, if someone wrote “dewberry and NLGR” as the target weeds and listed “Good control”, each weed was noted separately and each given a tally for “good control”. This was then considered “one report for NLGR and one report for

dewberry”. Although this scoring system was not perfect, it still gives a good general sense of how the herbicide performed when chemigated.

Results were fairly similar for both applications. Narrowleaf goldenrod (NLGR) was commonly targeted (31 reports) and most reported good to great control with chemigation. There were 21 reports on dewberry with the majority reporting OK to good control; results were inconsistent for dodder (16 reports). “All weeds” was another category that was commonly listed (21 reports) with most reporting good control, but a large proportion also reported minimal control. No one reported that the herbicide did not work, so the last category is not listed. Due to the limitations with the scoring procedure, we could not tell if there was a difference in performance between the first and second application.

Target weed	Number of responses							
	Great		Good		OK		Marginal	
	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>	2 <sup>nd</sup>
Cinquefoil	1	1	2	2	0	0	0	0
Dewberry	2	2	5	4	4	2	1	1
Dodder	1	2	3	2	2	2	3	1
Grasses	2	1	4	4	1	0	0	0
Maples	0	0	1	0	0	1	0	0
NLGR	3	3	12	8	2	1	1	1
Nutsedge	1	1	2	1	0	0	0	0
Pitchforks	1	1	0	0	0	0	0	0
Rushes	0	0	1	1	0	0	0	0
Sawbrier	0	0	0	0	2	1	0	0
Wild bean	0	0	2	2	0	0	0	0
YLS	1	0	1	2	1	1	0	0
All weeds	2	1	7	5	1	0	2	3