

**Study Name:** Flax tolerance to Callisto applied PP or PRE (0740)

**Objectives:** Evaluate flax tolerance to Callisto applied prior to planting (PP) or preemergence (PRE).

**Results:**

Callisto is being evaluated by Syngenta for use in flax. Callisto was applied 9 days prior to planting (DPP) or applied PRE. Bronate Advanced, Buctril, or MCPe were applied POST in some treatments. Callisto applied at 6 fl oz or less 9 DPP caused minor flax injury. Callisto applied PRE at any rate caused moderate to severe flax injury. Callisto applied PRE and then followed by any POST herbicide caused moderate to severe crop injury. Although crop injury was very visible, flax yields in treated plots were not significantly different from the untreated check. Heavy rainfall caused some areas to drown out, which likely contributed to higher overall plot variability and a high yield CV (16.5). Weed pressure was low throughout the study area. Based on this one study, applying Callisto PRE appears to cause what would be considered unacceptable crop injury.

Treatment	Rate	Timing <sup>a</sup>	Flax					
			-----% injury-----			Height <sup>b</sup> inches	Yield lb/A	Test wt. lb/bu
			Jun 20	Jun 30	Aug 6			
Untreated			0	0	0	21.4	36.6	52.9
Callisto	3 fl oz	9 DPP	1	1	0	22.6	36.3	53.1
Callisto	6 fl oz	9 DPP	4	2	0	22.5	34.0	53.2
Callisto	12 fl oz	9 DPP	17	10	9	21.7	36.4	52.8
Callisto	3 fl oz	PRE	18	12	11	21.3	32.4	53.3
Callisto	6 fl oz	PRE	25	18	16	20.6	30.0	53.1
Callisto	12 fl oz	PRE	42	32	22	20.5	31.8	53.3
Callisto / Bronate Adv	6 fl oz / 12.8 fl oz	PRE / POST	24	42	34	18.6	22.6	53.2
Callisto / Buctril + NIS	6 fl oz / 16 fl oz + 0.25%	PRE /	29	29	26	19.8	32.2	52.9
Callisto / MCPA ester	6 fl oz / 8.6 fl oz	PRE / POST	25	31	24	19.4	33.2	53.3
Buctril + NIS	16 fl oz + 0.25%	POST	0	8	7	21.1	33.1	52.8
MCPA ester	8.6 fl oz	POST	0	14	11	19.8	32.9	53.3
Bronate Adv	12.8 fl oz	POST	0	16	16	19.8	31.8	53.1
Spartan	6 fl oz	9 DPP	7	2	0	23.2	37.5	53.4
Spartan	6 fl oz	PRE	18	7	5	22.5	33.3	53.0
LSD (0.05)			7.8	7.2	7.6	1.71	NS	NS
CV			33.4	28.8	37.6	4.9	16.5	0.9

<sup>a</sup> POST treatments applied to 8-11" flax on June 20.

<sup>b</sup> Height measured on July 6.