

When making post-harvest applications, the rate applied preemergence in the spring must be taken into account so as not to exceed the 7.7 fl. oz./A/year rate limit. Post-harvest applications must be made in a way that minimizes contact with any standing asparagus spears or ferns and maximizes contact with the weeds and/or soil, e.g. by using a directed or semi-directed type application, or crop injury may occur. With post-harvest applications, the use of an adjuvant will increase the risk of crop injury.

If weeds are emerged at the time of the Callisto application, the addition of a crop oil concentrate (COC) type adjuvant at the rate of 1% v/v or a nonionic surfactant (NIS) at the rate of 0.25% v/v is recommended. In addition to COC or NIS, a spray grade UAN (e.g. 28-0-0) at the rate of 2.5% v/v or ammonium sulfate (AMS) at the rate of 8.5 lb./100 gallons of spray solution may be added for improved burndown of emerged weeds. If weeds have not yet emerged, no adjuvant is recommended.

Restrictions:

1. Do not apply more than 7.7 fl. oz./A of Callisto per year.
2. Do not make more than two Callisto applications per year.

BLUEBERRY, LINGONBERRY, BLACK RASPBERRY, RED RASPBERRY, AND BLACKBERRY

Callisto may be applied as a pre-bloom post-directed spray in high bush blueberry, lingonberry, black raspberry, red raspberry, and blackberry. For a list of weeds controlled see Tables 1 and 2. Callisto may be applied in bush or caneberries at a rate up to 6 fl. oz./A. If a split application weed control program is desired, 3 fl. oz./A followed by 3 fl. oz./A may be used, but no more than two applications per crop per year are allowed and not more than 6 fl. oz./A in total per year. If two applications are made, they must be made no closer than 14 days apart. The use of a crop oil concentrate (COC) type adjuvant at the rate of 1% v/v is recommended, but avoid using COC adjuvants that are injurious to blueberry and lingonberry leaves. Do not apply Callisto to blueberries and lingonberries after the onset of the bloom stage or illegal residues may occur.

In low bush blueberries, Callisto may only be applied in the non-bearing year. This application may be a broadcast application. Up to 6 oz./A of Callisto may be applied in a single application, or 3 oz./A followed by 3 oz./A if used in a split application program. No more than two applications per year are allowed and not more than 6 fl. oz./A in total per year. If two applications are made, they must be made no closer than 14 days apart. The use of a crop oil concentrate (COC) type adjuvant at 1% v/v is recommended. Applications of Callisto during dry weather conditions and/or temperatures above 85° can cause injury to Lowbush blueberries. Applications of Callisto can cause yellowing or necrosis of leaves and under severe conditions, leaf drop may occur especially on "Sourtop" variety blueberries.

BLUEGRASS, PERENNIAL RYEGRASS, AND TALL FESCUE GROWN FOR SEED

Callisto can be applied to bluegrass, perennial ryegrass, or tall fescue which is grown for seed. Callisto can be applied as a preemergence application to bare soil (new seedling) or as a postemergence application to an emerged grass crop, but not both.

Preemergence Application: Apply Callisto as a broadcast, surface spray at a rate of 6.0 fl. oz./A to a newly seeded crop. The Callisto application must be made prior to crop and weed emergence. Rainfall or irrigation as the newly seeded grass crop emerges from the soil may increase the risk of injury from Callisto. Grass crop injury symptoms include temporary bleaching of newly emerged leaves, or in extreme conditions, stunting. For a list of preemergence weeds controlled or partially controlled see Table 2.

Postemergence Application: Apply Callisto as a broadcast postemergence spray at a rate of 3.0-6.0 fl. oz./A to emerged bluegrass, perennial ryegrass or tall fescue grown for seed. Use the 3.0 fl. oz./A rate for postemergence control or partial control of the weeds listed in Table 1. Use the 6.0 fl. oz./A rate for postemergence weed control plus extended residual weed control (see Table 2). The addition of a crop oil concentrate type adjuvant at 1% v/v or a non-ionic surfactant (NIS) type adjuvant at a rate of 0.25% v/v is recommended. Postemergence applications of Callisto may result in temporary bleaching of the grass crop.

In addition to COC or NIS, a spray grade UAN (e.g. 28-0-0) at the rate of 2.5% v/v or ammonium sulfate (AMS) at the rate of 8.5 lb./100 gallons of spray solution may also be added for improved control of emerged weeds. The addition of UAN or AMS will improve consistency of postemergence weed control but will also increase the risk of grass crop injury, especially at Callisto rates greater than 3.0 fl. oz./A. If grass crop injury is a concern, do not add UAN or AMS to the spray solution.

Tank mixing other pesticides with Callisto postemergence may increase the risk of crop injury. Avoid adding pesticides with emulsifiable concentrate (EC) type formulations to Callisto for applications made postemergence to the crop.