New Reply Forward Move Follow Up Tools

Date: Thursday, September 14, 2006 01:51PM

Subject: Re: More fill-in the blank -- DNA screening - field sampling for analysis and ha conversation rates for sterile releases

From: Bruce Tabashnik <brucet@Ag.arizona.edu>

To: Sharlene Matten/DC/USEPA/US@EPA

cc: LAntilla@AZCotton.org, Bob Staten <azbugdoc@cox.net>, tdennehy@Ag.arizona.edu

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Sharlene,
To convert to ha multiply acres X 2.47 because there are 2.47 acres per ha.
So 20 steriles/Bt acre = 49.4 steriles per Bt ha.
100 steriles per non-Bt acre = 247 steriles per non-Bt ha.
It's best to keep "per day" separate from "per release."
The latest information I have on releases is the following, based on a conversation with Bob Staten (8-25-06):

Non-Bt cotton, 3 releases per week (1 release per 2.3 days)
Mean to date = 251 moths per acre per release (621 per ha per release)
251 moths per acre per release X 3 releases per week = 753 moths per acre per week
753 moths per acre per week divided by 7 days per week = **108 moths per acre per day**

Bt cotton, 3 releases per week (1 release per 3 days)
Mean to date = 53.1 moths per acre per release (131 per ha per release)
53.1 moths per acre per release X 3 releases per week = 159.3 moths per acre per week
159.3 moths per acre per week divided by 7 days per week = **22.8 moths per acre per day**

If non-Bt = 7% of acreage, Bt = 93% of acreage, 108 X 0.07 + 22.8 X 0.93 = 7.56 + 21.2 =
actual mean release rate = 28.8 moths per acre (71.1 per ha) per day

Note: Production of 70 million moths per week /165,000 acres of cotton = 420 moths per acre per week = potential mean release rate = 60 moths per acre per day (estimated mean is half of this)

Should have more info for you later today on PCR sampling, I don't have "suspect site" info.
Bruce