

**Evaluation of fungicides for control of gummy stem blight on watermelon, Kinston, NC 2020.**

The experiment was conducted at the Cunningham Research Station in Kinston, NC. Experimental plots were single raised beds on 5-ft centers covered with white plastic mulch; 14-ft long with 5-ft fallow borders on each end. Watermelon was transplanted to the field on 26 May (2-ft in-row spacing, 7 plants/plot). Irrigation and fertilization (4-0-8, N-P-K) were applied via drip tape. Five treatments and the non-treated control were tested in a randomized complete block design with four repetitions. Fungicide treatments were applied using a CO<sub>2</sub>-pressurized backpack sprayer equipped with a single-nozzle, handheld boom with a hollow cone nozzle (TXVS-26) delivering 40 gal/A at 35 psi. Applications were made on 25 Jun, 1, 9, 17, 24 and 31 Jul. Disease severity per plot was assessed every week through the season. Data were analyzed in the software ARM (Gylling Data Management, Brookings, SD) using analysis of variance (AOV) and Fisher's protected least significant differences (LSD) test to separate means.

Gummy stem blight was first detected on 25 Jun at approximately 2% disease severity in the field. At the disease severity data obtained 17 Jul, all treatments were statistically different from the non-treated control. For the disease severity recorded on 7 Aug all the treatments were statistically different from the non-treated control but the treatment Aprovia Top had the lowest disease percent statistically better from the treatment Howler, Induce and Inspire Super but not from the other treatments. Harvest data was collected and the treatments were not significantly different from the non-treated control (Data not shown).

Treatments	Rate	Disease Severity <sup>z</sup> (%) 17 Jul – Week 8	Disease Severity <sup>y</sup> (%) 7 Aug – Week 11
Non-treated control	–	15.5 a <sup>x</sup>	51.0 a
Howler	5 lb/a		
Induce	0.25 % v/v	9.5 b	35.0 b
Inspire Super	18 fl oz/a		
LBG-63FTA	2 pt/a		
Induce	0.125 % v/v	7.8 b	33.0 bc
LBG-63FTA	2.5 pt/a		
Induce	0.125 % v/v	10.3 b	30.8 bc
Luna Experience	14fl oz/a	7.3 b	31.0 bc
Aprovia Top	12 fl oz/a	6.0 b	27.0 c

<sup>z</sup>Disease rating scale based on percent necrotic foliage caused by *S. cucurbitacearum*. / 17 Jul.

<sup>y</sup>Disease rating scale based on percent necrotic foliage caused by *S. cucurbitacearum*. / 7 Aug.

<sup>x</sup>Treatments followed by the same letter(s) within a column are not statistically different ( $P=0.05$ , Fisher's Protected LSD).