

# NC STATE EXTENSION DEER REPELLENT RESEARCH

SUPPORTED BY NCCTA FUNDS & KWIZDA AGRO

## JEFF OWEN WORKED ON DEER REPELLENTS FROM 2002 TO 2012

- Worked with commercial deer repellents initially
- Evaluated temporary fencing & integrated commercial repellents
- Tested less-expensive bulk products from the pet food supply chain
  - Inedible egg powder
  - Spray dried red blood cells
- Evaluated backpack, ATV-mounted, & cannon mistblower sprayers

## 2020 TRICO REPELLENT EVALUATION

- Trico is a European product made from sheep fat
- Set up 4 studies at sites with previous browsing
- Tested Trico against bulk inedible egg, bulk spray-dried red blood cells, and untreated check plots
- Replicated plots were separated by 15 ft. buffers
- Trico was applied in December ONLY
- Bulk egg and blood were applied twice (in December & February)

## 2021 RESEARCH RESULTS

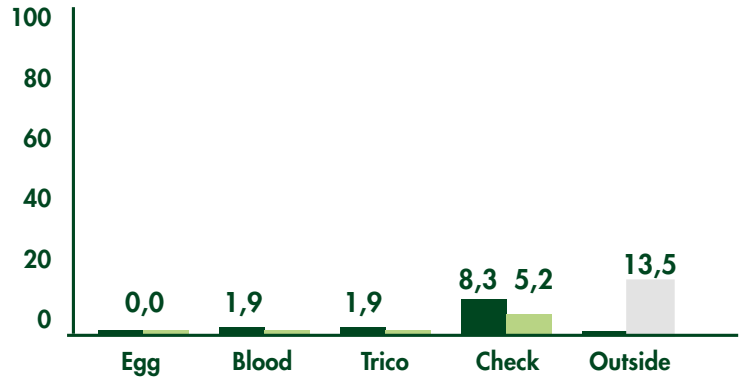
- Lost one study because trees were trimmed
- Two sites had very light injury (see bar chart)
- Avery site incurred severe deer browse
- Traditional research plot design was problematic
- Deer seemed to largely avoid treatment areas
  - Change from previous research was Trico
- Trico appeared to be more effective with only a single application

## 2021-2022 RESEARCH PLANS

- Repeat 20-21 treatments in larger block designs
  - Add promising repellents to treatment list
- Monitor growers' scarecrows, flagging tape, etc.
- Dr. Whitehill is studying deer-repellent terpenes

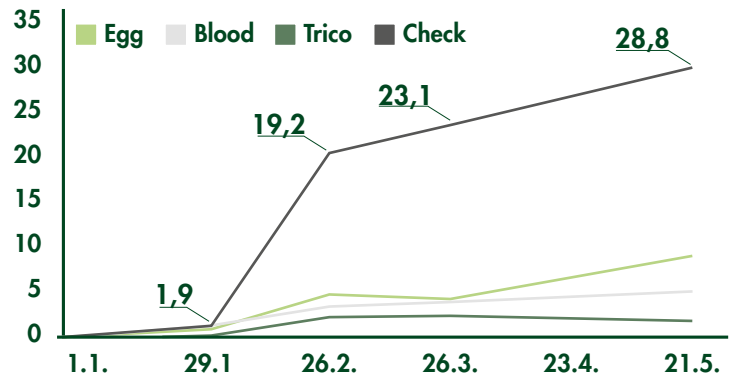
## 20/21 DEER REPELLENT STUDIES: ASHE & MITCHELL

Percent of trees browsed



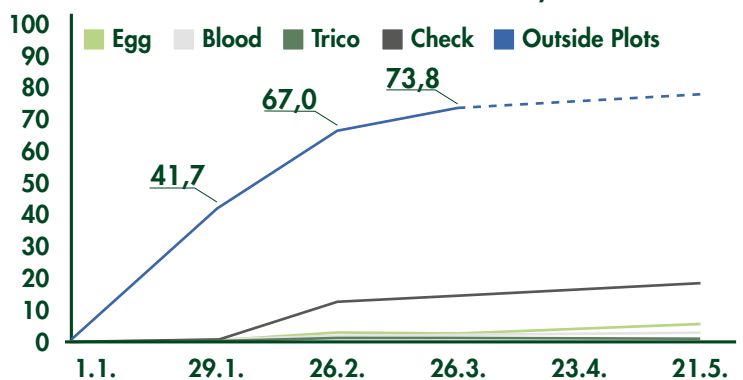
## 20/21 DEER REPELLENTS: AVERY COUNTY SITE

Percent of trees browsed



## 20/21 DEER REPELLENTS: AVERY COUNTY SITE

% of trees browsed OUTSIDE study



A TEAM EFFORT AMONG GROWERS, SPECIALISTS, RESEARCHERS, EXTENSION AGENTS, & TECHNICIANS

