



FIGHT BACK AGAINST CODLING MOTH AND HICKORY SHUCKWORM

TANGLER™CM ADVANCED MATING DISRUPTION SYSTEM



Biochemical pheromone (Dodecadien) disrupts mating



Orchard use in apple, pear, tree nuts and other tree fruit



Hand or unique bolo applicator saves time, labor during critical interval (pre-emerge of pests)



Developed independently and in collaboration with Michigan State University



Adjust rate of dispensers according to risk level



Insecticides may be used after application if needed

FACTS

Active Ingredient: (#, E)-8, 10-Dodecadien – 1 – ol (58.53%).

Mode of Action: Behavior modifying biochemical (pheromone) that disrupts mating of codling mouth (Cydia pomonella) and hickory shuckworm (Cydia caryana)

Warning: Caution

Clothing Requirement: Long sleeves and pants, socks, shoes, chemical resistant gloves, protective eyewear

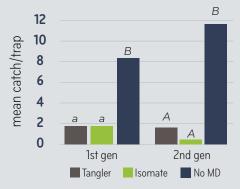
Application: Tangler CM compressed gas launcher (bolo design) to apply numerous modules to upper tree canopy. Modules also may be applied by throwing, walking or from an ATV

CODLING MOTH RESEARCH SUMMARY FOR TANGLER CM

Ridge Quest has worked independently and in collaboration with Michigan State University specialists for the past four years in developing the Tangler CM (Codling moth) mating disruption system. The Tangler CM has shown that it is comparable to the industry standard product of the Isomate Flex CM (Pacific Biocontrol) in suppressing moth flight and damage

Other trial data available upon request.

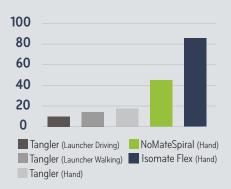
2011 & 2012 CM FLIGHT



Mean Wild Flight of CM for 2011 and 2012 by 1st and 2nd Generation

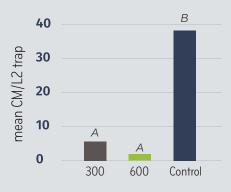
The Tangler system enables growers to apply mating disruption more quickly and at a reduced labor cost. Application rates of 300/acre or 600/acre provided excellent control with minimal use of supplemental insecticides

COMPARISON OF TIME OF APPLICATION FOR 300 TIES (MIN)



Comparison of application timing for Isomate Flex, Tangler CM, Tangler LR and NoMate LR, Michigan 2014, 2016 and 2018. Data is the mean time to apply dispensers at a rate of 300/acre. Tangler units were applied by hand walking and driving using the launcher.

TANGLER SIR CM -2014



Comparison of SIR CM Trap Catches at High and Low Rate

44

TANGLER CM DOES A WONDERFUL JOB CONTROLLING CODLING MOTH. WE JUST THREW THEM IN THE TREE AND IT WAS MUCH FASTER AND EASIER TO APPLY. IT ALSO IS LESS MESSY BECAUSE THERE IS NO PHEROMONE CONTACT. ***

- George Goodfellow George Goodfellow Orchards, Sparta, MI

44

I HAD A PROBLEM APPLE BLOCK NEXT TO A BIN PILE THAT WOULD GET A LOT OF CODLING MOTH DAMAGE EVERY YEAR. LAST YEAR I WORKED OUT A PLAN WITH DEPLOY TECHNOLOGIES TO USE THE TANGLER CM FOR CONTROL IN THAT BLOCK. THE BLOCK HAD THE LEAST AMOUNT OF CODLING MOTH DAMAGE THAT IT HAS EVER HAD. I AM VERY PLEASED WITH THE PRODUCT AND PLAN TO USE IT AGAIN THIS YEAR.

- Ken Hubert Summit Farms, Sparta, MI

ABOUT US

Tangler™ CM is exclusively manufactured for Deploy Technologies by Ridge Quest, Inc., both of Kent City, MI. Ridge Quest is an expert in fruit entomology with emphasis on Integrated Pest Management (IPM). The company has more than a decade of

experience in orchard consulting and scouting, and is staffed by a team of certified crop advisors and commercial applicators. Ridge Quest is considered a worldwide leader in mating disruption research and product development.



