Pitfall Trapping Trials for *Prionus laticollis* Using a Specific Pheromone Enantiomer

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Broadnecked Root Borer in Apple

Prionus laticollis

- One of largest N. Amer. longhorn beetles (3.5” length)
- Many hosts: oak, maple, willow, deciduous fruits
- Feeds on buttress roots and crowns, 3-4 yr devel.
- 1 gen/yr, adults emerge in July in NY
- Research on Prionus in CA & ID determined sex pheromone: 3,5-dimethyldodecanoic acid
- Very effective on P. californicus (pest of hops)
- Tested in NYS during 2010 season
Prionus laticollis
Prionus Pitfall Trap Captures, NY – 2010

- Northport
- Geneva

First emergence ~ 1100 DD
2011 Trapping Trials

• Further research found “Prionic Acid” to be mixture of several isomers; most active was: 3R,5S-dimethyldodecanolic acid (“3R enantiomer”)

• Regular Prionic Acid tested in Geneva, Modena, Northport and Riverhead, NY – commercial lures

• Prionic Acid compared against 3R enantiomer in Geneva
Prionus Pitfall Trap Captures, Geneva, NY – 2011
(Mixed Prionic Acid Blend)

First emergence ~ 1100 DD
Acknowledgments

• Grower Cooperators: Lou & Andy Amsler, Northport; Clarke McCombe, Riverhead; Steve Clark, Modena; Jeff Huether & Courtney Weber, Genvea

• Pheromone donations: Jim Barbour, Univ Idaho; Jocelyn Millar, UC-Riverside; Contech Enterprises, Delta, BC, Canada

• Technical Assistance: C. Sekulic, E. Swartele, P. Jentsch, D. Gilrein

• Funding Support: NYSAES Director Endowments