

Chemical Control/New Products

INTREPID™ INSECTICIDE: A NEW MOLT ACCELERATING CHEMISTRY FOR  
CONTROL OF LEPIDOPTEROUS PESTS IN POME FRUITS

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*Keywords:* Intrepid, pandemis leafroller, obliquebanded leafroller, codling moth, Lacanobia fruitworm, western tentiform leafminer, apple

*Abstract:* Intrepid belongs to the new class Insecticides referred to as molt accelerating compounds (MAC) from Rohm and Haas Company. Intrepid has demonstrated a broad range activity within the Lepidoptera while having no significant effect on bees, wasps or other beneficial species. This is a summary of 1999 and 2000 field efficacy trials conducted by Rohm and Haas Co. for controlling *Pandemis pyrusana* (pandemis leafroller [PLR]) and *Choristoneura rosaceana* (obliquebanded leafroller [OBLR]), *Cydia pomonella* (codling moth [CM]), *Lacanobia subjuncta* (Lacanobia fruitworm) and *Phyllonorycter elmaella* (western tentiform leafminer [WTLM]) in apples of the northwest. Intrepid gave excellent control of leafrollers, western tentiform leafminer and Lacanobia. In addition, Intrepid demonstrated effective control of codling moth in mating disruption systems.

**Materials and Methods**

Applications were made using commercial or three point airblast sprayers calibrated at 100 to 200 gpa. Latron B-1956 was added to all treatments at 0.13% v/v. Treatments were applied to large plot trials and subsampled 4 times. For PLR, OBLR and Lacanobia, the number of applications varied by trial. Evaluations of density and shoot feeding were made after critical applications. For WTLM, experiments comparing control of spring and summer generations of WTLM and PLR trials were evaluated for number of WTLM mines. Physiology was noted at time of application and evaluation. For CM, treatments were designed to define efficacy of Intrepid for supplementing CM mating disruption. Evaluations of CM damage were made at harvest. Treatments consisted of: Confirm (20 oz/acre) 150 DD + 14 day season long, Guthion (2 lb/acre) 200, (1200) 1 DD, Intrepid (12 fl oz/acre) 200, 500, (1200) 1 DD, Intrepid (16 oz/acre) 200, 500 (1200) 1 DD, Intrepid 98 oz/acre) 150 DD + 14 day season long. Trial number 12600013 had 1 additional application at 1200 DD.

**Results**

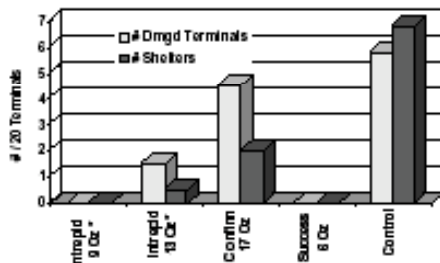
Intrepid gave excellent control of OBLR and PLR at 8 oz/acre or higher. A rate response was noted in larger trees with higher rates having faster, more consistent control of PLR. Intrepid gave excellent reduction of Lacanobia terminal feeding damage at 12 oz. Intrepid applied at PLR timings gave excellent control of WTLM. Intrepid applied at egg hatch gave good control of early sap feeders. Applications made at peak flight (timed for leafroller) gave excellent control of western tentiform leafminer. Three applications of Intrepid reduced CM entries equal to or better than 2 applications of Guthion. Damage levels in Guthion plots indicate application timings were not optimized.

**Summary**

Intrepid provides excellent control of OBLR, PLR, Lacanobia and WTLM. Intrepid provides good supplemental control to CM mating disruption. Intrepid gives excellent control of secondary Lepidopterous pests when targeting primary pest. The selectivity of Intrepid provides added value by having excellent safety to handlers and applicators, allowing application during the bloom period and a short reentry.

**Control of first generation Obliquebanded Leafroller in Apples**

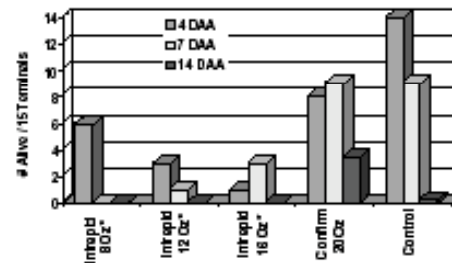
14 DAC, T.J. Niedlinger, 16999002, Mattawa, WA, 1999



Applications: Peak, peak flight, hatch  
\* Rates equivalent to fl Oz / 2 LB formulation

**Control of Pandemis Leaf Roller in Apples at petal fall**

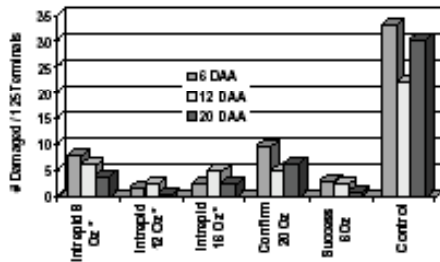
A.E. Duttie, 12600014, Quincy, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation

**Control of summer generation Pandemis Leafrollers in Apples**

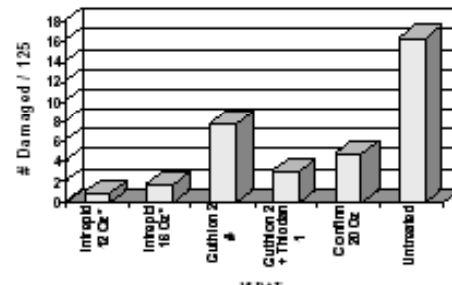
A.E. Duttie, 12600020, Wapato, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation

**Intrepid and Confirm for control of Lacanobia shoot damage in Apples**

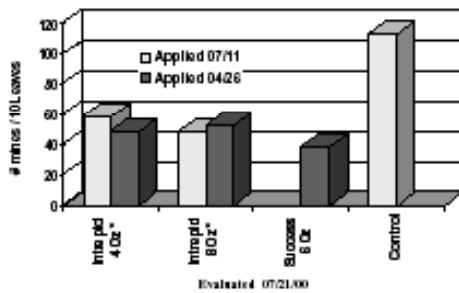
A.E. Duttie, 12600019, Basin City, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation

**Control of Leafminers in Apples when applied at peak hatch**

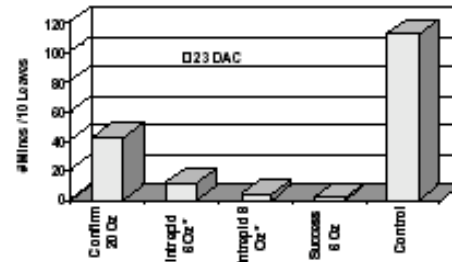
A.E. Duttie, 12600009, Tieton, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation

**Control of Leafminers in Apples when applied at egg lay (Peak Bloom, Peak Flight, PF+14)**

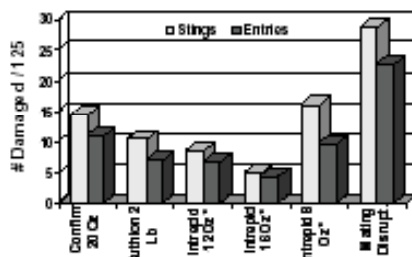
A.E. Duttie, 12600008, Tieton, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation

**Intrepid and Confirm control of Codling Moth damage under mating disruption in Apples**

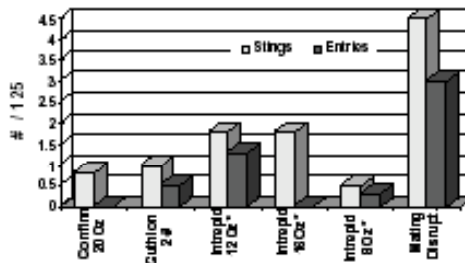
05Sep00, A.E. Duttie, 12600013, Royal City, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation

**Intrepid and Confirm for control of Codling Moth damage in Apples**

A.E. Duttie, 12600015, Parker, WA, 2000



\* Rates equivalent to fl Oz / 2 LB formulation