

## 2-3. Empirical Model for a Forecasting of Upward Movement Time of Overwintered Adults *Caccopsylla pyricola* (Homoptera: Psyllidae) in Pear Orchards

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Pear psylla, *Caccopsylla pyricola*, has become a serious insect pest in Korean pear orchards since 1998. Pear psylla overwinters as adults under rough bark scales of pear trees. When the weather warms in the spring, the overwintered adults become active, climb up the tree branches, and inhabit on fruit twigs to produce eggs. Machine oil spray is very effective for the control of overwintered adults when the spray is timed after the adult movement from rough barks to tree branches. An conventional spray timing resulted in a failure of pear psylla control, since the machine oil spray was arranged before the adult movement under an abnormal weather condition in early season. Relationship between the movement of pear psylla adults and weather condition was analysed for four years (1993 to 1995, 2001). More than 80% of overwintered adults moved up to tree branches when the cumulative number of days above 6°C in maximum temperature from February 1 was 11.5 days. In field experiment, timing spray after the adult movement showed much better control effects for pear psylla than a spray before the adult movement.