REDUCING FRUIT ROTTING WITH PARTIAL CONTROL OF CODLING MOTH DAMAGE [Trial 97/4/1]

High numbers of codling moth [>100/week] have been recorded in pheromone traps in cider orchards in recent years, both in the West Midlands and in the South West. This is well over the desert apple threshold [>5/week] for a recommendation to spray for the pest. Codling damage to the fruit creates a wound were brown rot fungus [*Monilinia fructigena*] can enter.

In this trial, in a year when both brown rot was severe and codling moths appeared in large numbers, an insecticide was sprayed to half of a block of Michelin and Dabinett. The spray was applied at the optimum time according Pest-man prediction.

Twenty trees of both varieties were recorded in sprayed and unsprayed areas. The table below shown fruit set, recorded as numbers of fruit/cm^2 branch unit, a comparable biometric within a variety. The figure for rots/tree includes rotting fruit both on the tree and on the ground beneath the tree.

Treatment	Sprayed		Unsprayed	
	Fruit set	Rots/tree	Fruit set	Rots /tree
Michelin				
28/8/97	11.7	13.3	11.0	19.8
24/9/97		41.9		75.5
Dabinett				
28/8/97	11.8	0.7	14.5	2.5
24/9/97		3.9		8.3

Although there was no significant increase in the numbers of fruit retained on the trees in the area sprayed to control codling moth, there was a noticeable reduction in the numbers of fallen fruit developing brown rot.
The second assessment of fruit [24th September] illustrates the rapid increase in rotting just prior to harvest.
This clearly illustrates the role of the pest in the development of rots throughout the season. It also shows that Michelin is particularly susceptible, suggesting that a control spray would be worthwhile in years when excessive numbers are recorded in traps.