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## FINAL REPORT

**Transfer of the vegetable pest  
forecasts onto a PC**

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## **INTRODUCTION**

Systems have been developed for forecasting the timing of attacks by two fly and one beetle pest of vegetable crops (HDC Projects FV13, FV44). The pest models were written as FORTRAN programs, which are run on the VAX computer at Wellesbourne.

The objective of the present project was to convert the FORTRAN program to a Pascal version which could be run on a PC and would display the output graphically. This would make the system sufficiently flexible to be taken to meetings and demonstrations. The aim was not to make the vegetable pest forecasts available generally on a PC, but rather to use the PC system to advertise HDC information at various venues, such as trade exhibitions and appropriate HRI/ADAS Open Days. As funds were limited, the carrot fly forecast was chosen to produce a version of the forecast that would be suitable for demonstration on a PC.

## **MATERIALS AND METHODS**

A software engineer converted the program for the carrot fly forecast from FORTRAN to Pascal so that it could be run on a PC. The demonstration version was run using weather data from HRI Kirton and HRI Stockbridge House together with the numbers of flies caught on yellow traps at the two sites, so that comparisons between observed and forecast activity could be made.

## **RESULTS**

A PC version of the carrot fly forecast was produced and demonstrated to growers at a number of events, including VEGEX 1992 (HDC stand), HRI Open Day 1992 and HRI grower workshops.

## **DISCUSSION**

The 1992 PC version of the carrot fly forecast was produced solely for demonstration purposes and hence was not tested rigorously to HRI standards. It was decided early in 1993 not to proceed to disseminate forecasts by using PC's and locally-gathered weather data, but to concentrate instead on disseminating forecasts from a central point using Met Office data. Therefore, the version described in this report has now been superseded by a modified, newer version that runs on the VAX at

Wellesbourne. This version was used to produce the forecasts that were disseminated in 1995 (FV 127) and, because it is VAX-based, it is not suitable for use by commercial growers.

### **SUMMARY**

1. A PC version of the carrot fly forecast was developed for demonstration purposes.
2. This version was demonstrated to growers at VEGEX 1992 (HDC stand), HRI Open Day 1992 and a number of HRI grower workshops.
3. A decision was made, early in 1993, not to proceed with the dissemination of forecasts through the use of PC's using locally gathered data but to concentrate on dissemination from a central point using Met Office data.
4. The PC version has been superseded by the FORTRAN version of the carrot fly forecast that is used currently at Wellesbourne to produce carrot fly forecasts (FV 127). As the new version is VAX-based, it is not suitable for use by commercial growers.

### **ACKNOWLEDGEMENTS**

The Pascal version of the carrot fly forecast was written by K. Stone and R. Owen at HRI East Malling.

### **APPENDIX**

Operating instructions:

1. Insert disk into **A:** drive of PC.
2. Type **BUG** to load program.
3. Follow instructions for option selection.
4. Select **SITE** and **YEAR** for which to run forecast.
5. Run carrot fly forecast by selecting **PESTS** option.
6. The **TABLES** option will produce forecasts of emergence, egg-laying or pupa formation.
7. The **CONFIGURE** option can be used to change line width, colour and style.
8. Select **EXIT** to exit the program.