Project Title	:	Investigations on Determination of The Best Model for Prediction of Fire Blight on Pome Fruits (*Erwinia amylovora)*
Start /End Date	:	1999-2001
Supporting Body	:	GDAR
Leader	:	Gönül DEMİR
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Summary	:	The Maryblyt verison 4.3 model, BRS (Billing Revised System) and BIS 95 (Billing Integrated System) were evaluated and compared for the prediction of blossom blight for the growing season in apple and pear orchards in the Aegean Region. Temperature and rainfall data were collected by automated data loggers and phenological and disease observations were recorded personally. Studies were carried out for four years (1997-2000) in twelve pears orchards with high disease incidence in İzmir and Bursa provinces and four apple orchards in Uşak and Denizli provinces. For all years and in all orchards, the Maryblyt computer software was accurate in predicting canter margin symptoms (CBS), blossom blight symptoms (BBS) and canker blight symptoms (CBS) but less accurate in predicting shoot blight symptoms (SBS). The BRS risk assessment systems which were tested in 1997 and 1998 apparently indicated more days with an infection risk than infections actually took place. However in no case did the system failed to indicate a real infection date. In 1998, 1999 and 2000, the Maryblyt model and BIS 95 developed by Eve Billing were compared in two apple growing regions. The models predicted one-four infection periods but early symptoms occurred earlier than predicted in both orchards. The earliest symptom consists of small white to amber ooze droplets visible on the young ovary or on the blossom stem. Generally, both models seemed to provide accurate prediction of infection periods but actual symptoms observed earlier than the model's prediction. Our observations and supporting data demonstrate that moderate or severe fire blight seasons result from the occurrence of multiple infection periods. When there were infection conditions predicted by the prediction systems, chemical treatments provided very significant reductions in the amount of blossom blight infection in pear and apple orchards.