

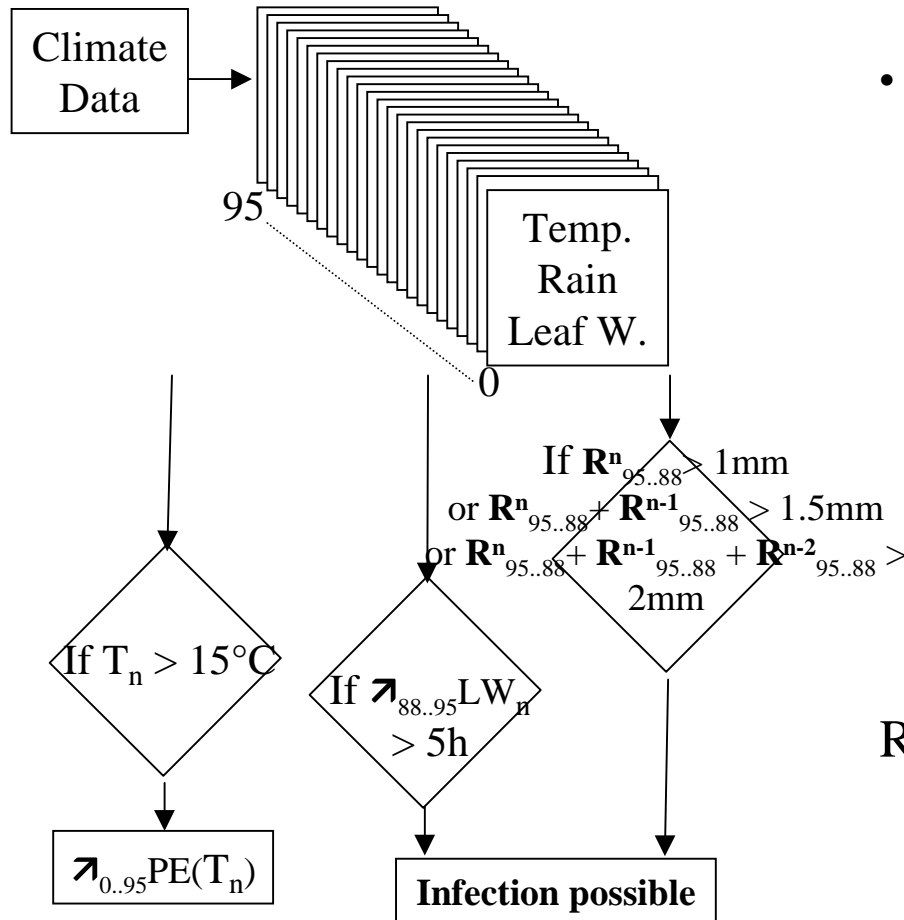
Fire Blight (Apples and Pears)

... Model assesses the bacteria propagation on base of:

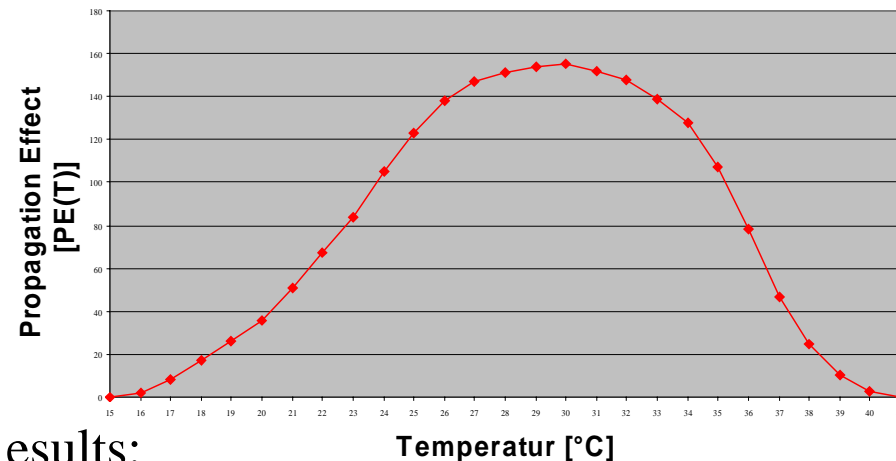
- Temperature

... and the possibility of infection on base of:

- Rain within last 8 hours (R)
- Number of hours with leaf wetness within last 7 hours



Fire Blight Degree Hours of Smith Fire Blight Model



Results:

- Value indicating the speed of bacteria propagation
- Risk figure between 0 and 7
- Possibility of infection

Fire Blight (Apples and Pears) Risk Figure and PET Σ interpretation

Potential for Pathogen Presence		Very Low	Low	Low - Moderate	Moderate	High
No Fire Blight in area past 2 seasons	PET Σ	0 – 200	200 – 220	220 – 250	250 – 325	325+
	Risk Figure	0,1,2,3	4	5	5,6	7
Fire Blight in local area 2 seasons ago	PET Σ	0 – 100	100 – 200	200 – 220	220 – 325	325+
	Risk Figure	0,1,2	3	4	5,6	7
Fire Blight in local area last season	PET Σ	0 – 100	100 – 200	200 – 220	220 – 300	300+
	Risk Figure	0,1,2	3	4	5	6
Fire Blight in or near your orchard	PET Σ	0 – 60	60 – 110	110 – 160	160 – 220	220+
	Risk Figure	1	2	3	3,4	5
Active cankers are now nearby	PET Σ	0	0 – 60	60 – 80	80 – 160	160+
	Risk Figure	0	1	2	2,3	4

Simple Risk Figure Evaluation: 0 = no risk at all, 1 = Low risk if there is fire blight in the orchard, 2 = Low to moderate risk if there is fire blight in your village, 3 = moderate risk for villages with fire blight, 4 high risk for villages with fire blight, 5 = high risk for areas with fire blight, 6 = high risk for areas with fire blight in last season, 7 = high risk for areas with fire blight 2 and more seasons ago

Fire Blight (Apples and Pears)

Data Presentation:

Fire Blight
 Bacteria Propagation (BPro), Risk (R), Infection (I)
M-DD HH BPro R I

Fire Blight Hourly Values:

μMETOS and μLINK shows the hourly values bacterial propagation, risk and the possibility of an infection.

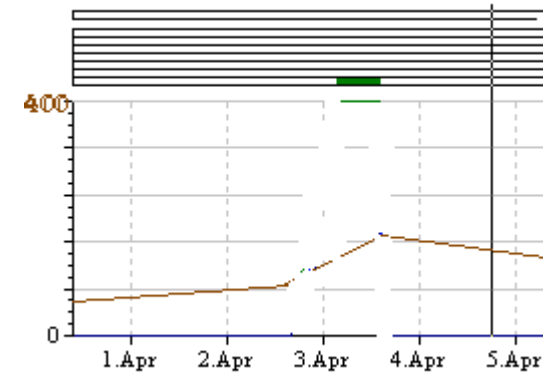
Daily Values:

Maximum values of every day are shown.

Label

5-12 07	220	4
5-12 08	300	5 *
M-DD HH	Bpro	R I
M-DD HH	Bpro	R I

Screen



Fire Blight (Apples and Pears)

Practical Use:

The fire blight model indicates the climate effect on bacterial propagation. The bacteria is well adapted to warm climate. As warmer the time around blossom as higher the risk of a fire blight infection. If the propagation rate is very low orchards with no fire blight in the nearer area are not in danger. With the increase in propagation rate the risk of wide spread fire blight is increasing. If there is a very high volume of bacteria available even orchards quite far away from an active fire blight spot can be infected. This is indicated by the table shown on the slides before. The risk figure from 0 to 7 should indicate this in a faster way.

Fire blight infections will take place as soon as we have bacteria and a little bit free water. The possibility of bacterial infection is indicated by the infection flag.