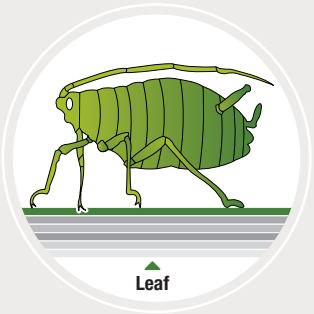


# TURNIP YELLOWS VIRUS

PERSISTENT VIRUS: TAKES SEVERAL HOURS FOR TRANSMISSION

**NON PERSISTENT  
VIRUS TRANSMITTED  
WITHIN MINUTES**

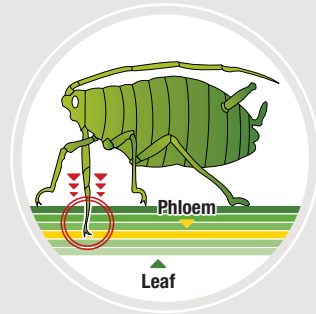
Untreated



**WITHIN 3 MINUTES**

aphid probes the leaf  
tissue surface

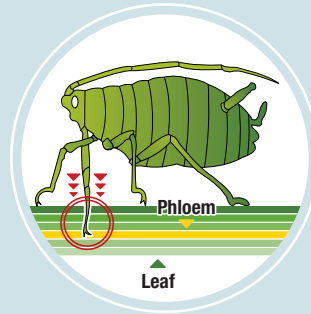
Untreated



**22 MINUTES**

the aphids 'PLUG' into  
the phloem vessel

**Plenum®**

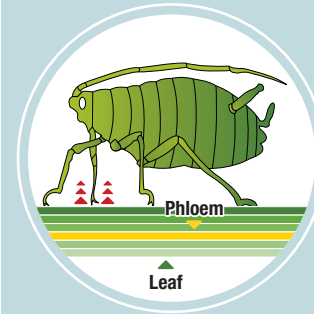


**40 MINUTES**

the aphid plugs  
into the phloem  
**(the PLENUM retards the  
ability to find the phloem)**

**PERSISTENT VIRUS IS  
NOT TRANSMITTED**

**Plenum®**

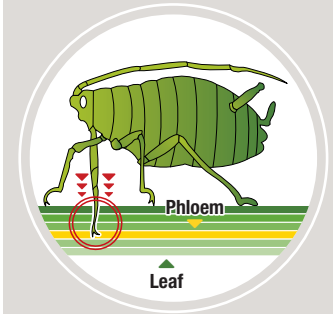


**WITHIN 58 MINUTES**

of starting feeding  
the aphid will retract  
its feeding stylet

**PERSISTENT  
VIRUS INFECTION**

Untreated



**480 MINUTES**

into the experiment  
untreated were  
still 'PLUGGED'  
into the phloem

TIME