Škodljivost, bionomija in variabilnost trtne uši (*Dactulosphaira vitifoliae* Fitch) ter varstvo vinske trte pred tem škodljivcem

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Trsi, ki jih napade trtna uš slabo rastejo, dajejo manjši pridelek in nazadnje odmrejo. Poškodbe trtne uši so posledica hranjenja na koreninah in so vidne na celicah, koreninah, sistemično na celotnih trsih, v rodnosti vinograda in njegovi vitalnosti. Naša opazovanja kažejo, da so na trsih škodljive tudi različno virulentne glive, ki naselijo poškodovane korenine. Tudi šiške, ki se oblikujejo na listih, so poškodba. Spremlja jih manjša rast poganjkov na podlagah, kar predstavlja gospodarski problem v matičnjakih, kjer pridelujejo podlage. Opažamo tudi pojav trtne uši na listih *Vitis vinifera*, kar pa je manj pogosto in zazdaj ne povzroča škode na trsih ali zmanjšanega pridelka.
Razvoj in uspešnost trtne uši je odvisen od tipa tal, kakovosti korenin in temperature v tleh. Razlike so v stopnji odpornosti ali občutljivosti sort, mikrobiotični aktivnosti v tleh in v genotipih trtne uši. Čeprav lahko virulentnost trtne uši demonstriramo v laboratoriju, so rezultati različne virulentnosti v poljskih poskusih, ki so vidni kot poškodbe, lahko opazni le na podlagah z nizko odpornostjo. Pri zelo odpornih podlagah so poškodbe lahko omejene na mlade (lasaste) korenine (nodozitete).
Varstvo pred trtno ušjo je lahko preventivno (karantenski ukrepi) ali aktivno, ko se trtna uš prvič pojavi na listih (kemično varstvo). Najboljša rešitev pa je ponovna zasaditev z visoko odpornimi podlagami. Raziskave interakcij med trtno ušjo in fakultativnimi patogeni z razmerami v tleh in fiziologijo vinske trte bodo pomagale zapolniti vrzeli v znanju in se tako izogniti potencialnim dolgoročnim problemom s podlagami.

ABSTRACT

Grape phylloxera damage, ecology, variability and management

Vines damaged by grape phylloxera grow and yield poorly, and eventually die. Grape phylloxera damage to vines as a result of the root feeding can be seen on cells, on whole roots, systemically on whole vines, and at the vineyard level on field productivity and vineyard survival. Our evidence suggests that damage is caused by attack of wounded roots by a number of facultative fungal pathogen species of varying virulence.
Leaf galls are also a form of damage. Leaf galls have been associated with decreased shoot growth of rootstocks and this is an economic problem for rootstock mother block production. Phylloxera feeding on *V. vinifera* leaves is beginning to be seen but is not common and has not yet been strongly associated with vine damage or depressed yield.
Developmental rate and success of grape phylloxera depend on the nature of the soil, qualities of roots, and temperature. Variability of the system can be seen in the vine (varying level of resistance and susceptibility of cultivars, stress), soil microbial ecology, and phylloxera

genotypes. Though differences in grape phylloxera virulence can be demonstrated in the laboratory, field evidence of differences in virulence that result in vine damage can only be seen with weakly resistant rootstocks. Evidence with strongly resistant rootstocks may be restricted to phylloxera on immature roots (nodosities).

Management can be preventive (quarantine), active, when phylloxera first arrives or presents itself on leaves (chemical control), but the best solution is replanting with highly phylloxera-resistant rootstocks. Research on interactions of phylloxera and the facultative pathogens with soil ecology and vine physiology will help fill in our knowledge gaps and avoid the potential of long-term problems with rootstocks.