

## Identifikacija potencialnih naravnih prenašalcev trsnih rumenic v Podravski vinorodni deželi

Gabrijel SELJAK<sup>1</sup>, Gustav MATIS<sup>2</sup>, Jože MIKLAVC<sup>2</sup>, Konrad BEBER<sup>2</sup>

<sup>1</sup> KGZS, Kmetijsko gozdarski zavod Nova Gorica, Pri hrastu 18, SI-5000 Nova Gorica

<sup>2</sup> KGZS, Kmetijsko gozdarski zavod Maribor, Vinarska 14, SI-2000 Maribor

Pri iskanju vzrokov za epifitotični pojav trsnih rumenic v podravski vinorodni deželi v letih 2001-02 in rešitev za njihovo omejevanje je bilo ugotavljanje številčnosti znanih in potencialnih naravnih prenašalcev te bolezni temelj za nadaljnje raziskave in ukrepanje. Laboratorijske analize vzorcev vinske trte s simptomi trsnih rumenic v l. 2002 so pokazale, da je na tem območju zastopana trsna rumenica počrnelosti lesa (Grapevine bois noir phytoplasma - BN). Ker so naravni prenašalci teh bolezni vinske trte škržatki (*Auchenorrhyncha*), je bilo najprej potrebno napraviti inventar vrst, ki se pojavljajo v okuženih vinogradih. Inventarizacija škržatkov je bila izvedena v treh izbranih vinogradih v podravski vinorodni deželi, v katerih je bil delež okuženih trsov zelo velik (od 40 – 80 % trsov s simptomi BN): Turški vrh v Halozah (UTM - WM83), Strezetina (UTM - WM84, Svetinje – Malek v Slovenskih goricah (UTM – WM94). Vrsto sestavo in pogostnost škržatkov smo ugotavljali:

- a) s pomočjo rumenih lepljivih plošč, ki smo jih izobesili na žice med trse ter jih mesečno menjavali in popisali vrste in številčnost škržatkov;
- b) z lovom škržatkov z insektsko mrežo v juniju in v začetku septembra in sicer posebej na trsah in posebej na podrasti.

Inventarizacija škržatkov v izbranih vinogradih je pokazala razmeroma veliko številčnost imaga sklenokrilega škržatka (*Hyalestes obsoletus*), prenašalca fitoplazme BN, v vseh treh vinogradih v obdobju od začetka junija do konca julija. V njih so v podrasti obilno zastopane tudi nekatere njegove priljubljene gostiteljske rastline, zlasti njivski slak (*Convolvulus arvensis*), mestoma tudi velika kopriva (*Urtica dioica*). Opazili smo pozitivno korelacijo med abundanco teh gostiteljskih rastlin in številčnostjo sklenokrilega škržatka. Poleg sklenokrilega škržatka smo našli še naslednje vrste škržatkov, ki so v literaturi omenjeni kot potencialni prenašalci rumenic tipa stolbur na zelnatih rastlinah: *Aphrodes makarovi*, *Euscelis incisus*, *Anoplotettix fuscovenosus*, *Neoliturus fenestratus*. Skupaj je bilo ugotovljenih 43 vrst škržatkov, večji del teh se zadržuje na podrasti. Prava ampelofagna vrsta je le zeleni škržatek (*Empoasca vitis*), ki se je najbolj obilno lovila na rumene plošče. Neposredno na vinski trti so bile poleg omenjene vrste najdene še naslednje: *Neoliturus fenestratus*, *Anoplotettix fuscovenosus*, *Philaenus spumarius* in *Hyalestes obsoletus*. Od teh je prava arborikolna vrsta le še *Anoplotettix fuscovenosus*, mednje pa spada tudi vrsta *Fieberiella flori*, ki se je ujela le na rumene lepljive plošče. Z nobeno metodo spremljanja v podravski vinorodni deželi doslej nismo ugotovili ameriškega škržatka (*Scaphoideus titanus*), ki je prenašalec zlate trsne rumenice (Flavescence dorée phytoplasma). Ta predhodna raziskava nakazuje povezanost med epifitotičnim pojavom BN in njenim prenašalcem – sklenokrilim škržatkom (*Hyalestes obsoletus*) v podravski vinorodni deželi.

## ABSTRACT

### Identification of potential natural vectors of grape yellows in Drava wine-growing region

During 2001-02 an epidemic occurrence of grape yellows in Drava wine-growing region has been observed. The phytoplasma from the stolbur group, which is associated to the grapevine bois noir (BN), was always found during laboratory tests carried out in 2002 on symptomatic vine stocks from selected vineyards. In these vineyards investigations on leafhopper and planthopper (Auchenorrhyncha) fauna as potential natural vectors of phytoplasmas, which might be the cause of rapid disease proliferation, were carried out. Three vineyards, where the infection rate of BN was very high (40-80 % of vine stocks), were selected for the further faunistic investigations: Turški vrh v Halozah (UTM - WM83), Strezetina (UTM - WM84, Svetinje – Malek v Slovenskih goricah (UTM – WM94). Two methods were used to find out the presence and frequency of single species:

- a) Using yellow sticky traps, which were changed and controlled monthly;
- b) Collecting of hoppers with an entomological net in June and at the beginning of September, separately on grapevines and on undergrowth vegetation.

A comparatively large population of planthopper *Hyalestes obsoletus*, which is known as the vector of stolbur phytoplasma, was found in the three selected vineyards in the period from the beginning of June till to the end of July. Their main host plants, especially *Convolvulus arvensis* and somewhere *Urtica dioica* too, were also largely present in all three vineyards. A positive correlation was noticed between the capture of *Hyalestes obsoletus* and the abundance of these weeds. Some other leafhoppers mentioned in the literature as possible vectors of the stolbur phytoplasmas on herbaceous plants (e.g. *Aphrodes makarovi*, *Euscelis incisus*, *Anoplotettix fuscovenosus*, *Neotalitrus fenestratus*) were abundantly collected. 43 Auchenorrhyncha species all together were found in the three locations, the majority of them on undergrowth vegetation. The leafhopper *Empoasca vitis* was the only true ampelophagous species, abundantly trapped on yellow sticky plates. The following species were also swept directly from grapevines: *Neotalitrus fenestratus*, *Anoplotettix fuscovenosus*, *Philaenus spumarius* and *Hyalestes obsoletus*. Only one of them, the *Anoplotettix fuscovenosus* is a true arboricolous species. Another arboricolous species, the *Fieberiella flori*, was only trapped in a very low number on yellow stick plates. The leafhopper *Scaphoideus titanus* the vector of FD (Flavescence dorée phytoplasma) has been found nowhere in this part of Slovenia yet. The present preliminary investigation indicates a possible close relation between *Hyalestes obsoletus* populations and current epidemic occurrence of BN in Drava wine-growing region.