

VULPIA MYUROS (L.) C.C.GMEL.

Rat's-tail fescue

Scientific name: *Vulpia myuros* (L.) C.C.Gmel

English name: Rat's-tail fescue

French name: Vulpe queue-de-rat

German name: Mäuseschwanz-

Federschwingel

Spanish name: Vulpia, Greñita común,

Sedilla

Italian name: Vulpia sottile,

Paleo sottile

Danish name: Stor væselhale

Dutch name: Gewoon langbaardgras,

Langbaardzwenkgras

Slovene name: Navadni bingelj

A NEW WEED?

Rat's-tail fescue is an acid-loving (found on acid soils) annual grass, which grows naturally in oak forest glades, where it can form large populations. Found on roadsides, it colonizes winter grains. It undoubtedly benefits from minimum tillage techniques and the low efficacy of postemergent grass herbicides (fops). The seed dispersal vectors are not precisely known.

BOTANY - ECOLOGY

Family: Poaceae (grasses).

Life cycle: annual plant (therophyte).

Germination period: staggered throughout the year, except during the summer. The seed germinates at the surface (no deeper than 1.5 cm).

Like many grasses, seed dormancy is minimal and seed stocks thus germinate rapidly.

Flowering from May to July.

Seed: the seeds bear a terminal awn, which is up to 3 times longer than the rest of the seed.

- seed production variable according to the environment; 500 to 5000 seeds per plant.

- seeds do not remain viable in the soil for long.

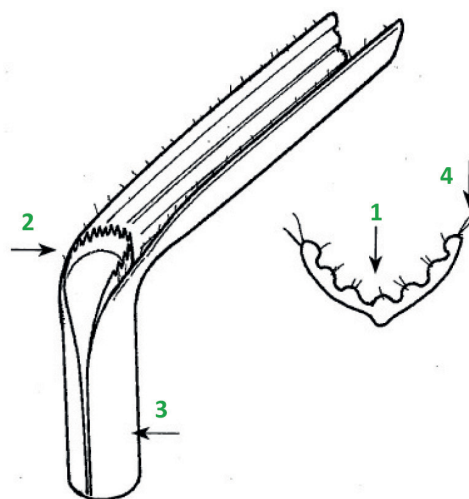


Figure 1 - Vegetative characteristics of rat's-tail: 1) upper leaf 2) ligule 3) sheath 4) lashes (Mamarot and Rodriguez, 2014).



Figure 2 - Rat's-tail fescue inflorescence



Figure 1 - Rat's-tail fescue: tillering, vegetative stage



Figure 1 - Rat's-tail fescue seeds

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WHAT ACCOUNTS FOR ITS PRESENCE IN NO-TILL?

Minimal disturbance of the soil surface may account for its presence in no-till and minimum-till fields. The capacity of the weed to stagger its emergences over time enables it to develop over longer periods. Relatively insensitive to the two major families of postemergent grass herbicides (fops and sulfonylureas), rat's-tail fescue is probably spread to fields by combines.

CONTROL

In spite of its frail appearance, rat's-tail fescue at heavy densities may be particularly damaging in winter grains. Even though no herbicide resistance has been documented, chemical control is still difficult. At the present time, chlortoluron-based products are the only ones that give sufficient control, provided that the wheat cultivar can tolerate them.

Incorporating summer crops in the rotation is a way to "empty" the seedbank, as the seeds do not survive long in the soil. Diversifying the rotation with broad-leaf crops broadens the range of herbicide molecules (propyzamide), but interventions must be quite early.

As with all weeds that are difficult to control, prevention is still the most effective method:

- management (disking or mowing) of field edges to prevent seed set
- if possible, use a chaff cart when harvesting invaded zones to limit dispersal
- hand rogueing of isolated plants can be of great value in controlling this weed.

RISK OF CONFUSION

Red fescue (*Festuca rubra* L.): confusion is possible in the vegetative stage. The sheath of red fescue is entire (not split).

BIBLIOGRAPHY

Arvalis, 2008. *Perspectives Agricoles*, N° 350, https://www.perspectives-agricoles.com/file/galleryelement/pj/d7/71/ce/11/350_4800454735972328425.pdf
Lawrence N.C., C. Burke I.C. 2014. Control ... in No-Till Winter Wheat. *Weed Technology*, 28, 471-478.
Mamarot A. 2014. *Mauvaises Herbes de cultures* Ed. ACTA. P. 520.



Figure 5 - Rat's-tail fescue inflorescence in wheat