



European field pansy

Viola arvensis syn. *Viola tricolor* L. var. *arvensis* (Aka field pansy, wild pansy, European wild pansy, field violet)

Provincial Designation:
Not Regulated



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Overview:

Field pansy is an annual or winter annual of the Violet family, native to Eastern Europe and temperate Asia. Flowers are self-fertile but also cross pollinated by insects. Flowering and seed production occurs from early spring through to late autumn with an average of 1,500-2,500 seeds per plant. Some seed capsules split explosively upon drying and can propel seeds 2m from parent plant - about half of the seed remains on the parent plant.²

Seeds germinate early spring and again in the fall, the germination favoured by cool fluctuating temperatures. Seedling emergence is greater in disturbed soil with the greatest emergence from the top 3 cm of soil. Seed longevity estimated at 4-6 years.²

Field pansy has become a pest of cereal crops and pastures and heavy infestations cause yield losses.³ Plants are upright in crop situations and produce fewer seed capsules but in open ground form sprawling, tangled mats and abundant seed capsules.²

Field pansy is edible, used in herbal remedies

and rich in Vitamins A and C.²

Habitat:

Field pansy prefers light, sandy soils but will grow in clay soils if no competition present. It is somewhat drought resistant and tolerates wet soil and light frost.²

Identification:

Stems: Are ascending to erect, simple or branched at the base, sparsely covered with tiny hairs, and grow 5-50 cm tall.¹

Leaves: Are pinnate-like with lobes reaching halfway to mid-rib, the terminal lobe being the largest, and margins being scalloped or serrate. Leaf have sparse tiny hairs along the margins and veins. Leaf blades measure 0.5-6.5 x 0.2-2.2 cm with 2-40 mm stipules at their base. Lower leaves are more oval shaped, the upper leaves more lance shaped. Petioles are short or indistinct.¹

Flowers: Are creamy white to pale yellow, sometimes with tinges of blue, few to numerous, and borne on 2.5-11 cm stems. Bracts

are lance shaped and sepals oblong to lance shaped with pointed tips and 4-15 mm. Petals are shorter than or nearly equal sepals. Seed capsules are 6-10 mm long and seeds are oblong and 1.5-1.8 mm.¹

Prevention:

Early detection and clean crop seed will prevent the establishment of a seed bank. A healthy plant community can out-compete field pansy. Seeds can be disseminated via straw from infested cereal crops. Viable seeds have been found in cattle manure and feeding tests with finches found seed survived the digestive system to germinate.²

Control:

Grazing: Cattle grazing of field pansy would only distribute seed and is not an acceptable control method. Invasive plants should never be considered as forage.

Mechanical: Cultivation and harrowing can destroy seedlings - there is a lower incidence of field pansy in reduced cultivation. Hand pulling would be effective in small in-

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festations before seed production.

Chemical: Oxyfluorfen is an active ingredient registered for use on field pansy. Always check product labels to ensure the herbicide is registered for use on the target plant in Canada by the Pest Management Regulatory Agency. Always read and follow label directions. Consult your local Agricultural Fieldman or Certified Pesticide Dispenser for more information.

Biological: None researched to date.



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- 2 Bond, W., Davies, G., Turner, R. The biology and non-chemical control of Field Pansy (*Viola arvensis* Murray). HDRA, Rhyton Organic Gardens, Coventry, UK. www.gardenorganic.org.uk/organicweeds
- 3 *Viola arvensis*. Weeds. Bayer Crop Science. www.cropscience.bayer.com
- 4 Sodaieizadeh, H., Rafieiohossaini, M., Havlik, J., Van Damme, P. Allelopathic activity of different plant parts of *Peganum harmala* L. and identification of their growth inhibitors substances. <http://www.mendeley.com/research/allelopathic-activity-different-plant-parts-peganum-harmala-l-identification-growth-inhibitors-substances/>