

# Dactylis glomerata

ORCHARD GRASS

ENGLISH NAMES	orchard grass, orchardgrass, cocksfoot, cock's foot
SCIENTIFIC NAME	<i>Dactylis glomerata</i>
FAMILY	Poaceae or Gramineae (Grass)



Photo Credit: J. KESIK

Orchard grass is a tall, tufted, perennial grass.

## RANGE/KNOWN DISTRIBUTION

Orchard grass is native to Europe and South Africa but has been introduced as a meadow grass to New Zealand, Australia and North America. It is now found throughout the United States, southern Alberta and coastal British Columbia, and is still grown for hay and used in grass-seed mix to stabilise clearings and road cuts. It has escaped cultivation and is naturalised throughout the Garry oak range in British Columbia.

## IMPACTS ON GARRY OAK AND ASSOCIATED ECOSYSTEMS

Non-native grasses such as orchard grass are present in most Garry oak ecosystems and may comprise over 30 percent of the vegetation. These non-native grasses compete aggressively for water and nutrients and can form a dense litter layer that blocks light and can suppress the regeneration of native plants.

Orchard grass can significantly change the plant composition in a Garry oak ecosystem. Decaying grass adds nitrogen to the soil, favouring the growth of non-native plants that are adapted to high nitrogen levels. Litter accumulation from the grass also creates conditions for high-intensity fires.

## FIELD DESCRIPTION

Orchard grass is a tall bunchgrass (a grass that grows in clumps) with a tufted panicle (seed head). It can be recognised by its distinctive tufts and its height (up to 1.5 m tall). It is sometimes confused with reed canary grass, which is taller, grows in wetter areas and has wider leaves with a narrower, more pointed inflorescence. Expert consultation may be required as grass identification can be difficult.

DACTYLIS GLOMERATA

Lemmas (bracts around flowers) 5–8 mm long, stiff hairs on keel

Ligules (projections from sheath) 3–9 mm long, blunt to pointed, margins finely jagged, fringed with small hairs

Flowers in one-sided clusters, 2–5 flower spikelets with soft awn (tip)

Leaf sheaths split open part way

Tufted panicle (seed head) 3–15 cm long, held erect on stiff branches

Leaf blades flat, hairless, rough, 3–10 mm wide, sharp keel on underside

Stems hollow, up to 1.5 m tall

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## LIFE HISTORY

Orchard grass reproduces from seed. Growth begins early in spring with pale bluish-green leaves. Orchard grass flowers from May to September. In dry areas orchard grass may lie dormant in the summer, adding new growth in the fall and perhaps flowering again. Seed scattering takes place in late summer. Most seed germinates in the fall, so orchard grass does not usually build up seed banks in the soil. Over winter, the plant dies back to a basal rosette. It is long-lived (10–20 years), and tends to become more clumped with age.

Orchard grass also resprouts from underground stems. Most root development is in the upper 8 cm of soil but may extend to 46 cm below the surface, producing a dense sod.

## HABITAT

Orchard grass is found in dry meadows, woodlands, pastures,

Develop a long-term, realistic program for invasive species removal before undertaking any work. Before taking action, expert advice should be obtained. Please refer to the introductory section of this manual.

roadsides and disturbed areas. Its extensive root system makes it drought-tolerant, and it is also tolerant of shade and some soil acidity. Orchard grass uses high levels of nitrogen, and is often found in association with Scotch broom (*Cytisus scoparius*), which adds nitrogen to the soil.

## MANAGEMENT

Orchard grass is already well-established in most Garry oak ecosystems. If the invasion is large, the highest priority should be placed on its control or removal in the areas of highest conservation value, such as areas with rare or endangered plant species.

**PHYSICAL CONTROL:** For small patches of orchard grass, hand pulling or careful hoeing of the grass clumps can be effective in early summer before the seed sets, but this is very labour intensive. It can also be difficult, as non-native grasses will likely be mixed with native species. Carefully identify

native and non-native species before starting removal of non-native grasses. The root system should be removed where possible to reduce regeneration, while minimising disturbance of the soil and damage to native plants. In fall, use of a flame torch on remaining root crowns may reduce resprouting.

**BIOLOGICAL CONTROL:** No known biological agents are available.

**CHEMICAL CONTROL:** Spot spraying with a selective herbicide may be useful. Herbicides should only be used with extreme caution, and under expert advice, in sensitive Garry oak ecosystems.

For more information contact the Garry Oak Ecosystems Recovery Team, or see the website at [www.goert.ca](http://www.goert.ca)