VEGETATION MANAGEMENT
GUIDELINE: Reed Canary Grass
(Phalaris arundinacea L.)

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The Eurasian ecotype of reed canary grass
(Phalaris arundinacea) is a major threat to
marshes and other natural wetlands be-
cause of its hardness, aggressive nature,
and rapid growth. This species occurs in a
variety of wetlands, including marshes,
wt. prairies, wet meadows, fens, stream
banks, and swales. It has been planted
widely for forage and for erosion control.
Native wetland and wet prairie species are
replaced after several years of reed canary
grass presence. Reed canary grass invasio
is of particular concern because of the
difficulty of selective control.

Reed canary grass is a coarse, sod-forming,
cool-season, perennial grass native to
temperate regions of Europe, Asia, and
North America and adapted to much of the
northern half of the United States. It occurs
in a range of moisture conditions from wet
to dry and its best growth occurs on fertile
and moist or wet soils (shores, swales,
meadows). Reproduction is from seed and
vegetatively by stout, creeping rhizomes. It
begins growth in early spring, grows verti-
cally for five to seven weeks after ge-
ermination, and then expands laterally. Growth
peaks in mid-June and declines in mid-
August. Vegetative vigor is related to max-
imum root and shoot production. Seeds
ripen in late June and shatter when ripe.
The native reed canary grass is not thought
to be aggressive.

Fire can help control the invasion and spread
of reed canary grass in high-quality wet-
lands. Repeated late autumn or late spring
burning for several years can control this
species. Annual burning may be needed for
five or six years before good control is
apparent. Burning is most effective where
other species are present or in the seed bank
because fire allows native, fire-adapted
species to compete successfully. Fire is not
very effective in dense monocultures of
this grass where seeds or plants of native
species are absent.

Reed canary grass should not be totally
eliminated from a site because no reliable
method for telling the difference between
the native and Eurasian forms is known.
Control measures should be implemented
when reed canary grass degrades the natu-
ral quality or diversity of a community.

Hand removal for control may be feasible
in small stands. There is evidence that hand
chopping the culms at flowering time may
kill small clones. However, hand control
is very slow and too labor-intensive for large
stands.

In disturbed sites, where there is no real
concern for damage to surrounding native
species, certain herbicides are effective.
Rodeo, a formulation of glyphosate de-
digned for use in wetlands, will kill reed
canary grass, especially young plants, when
applied to foliage according to label rec-
ommendations. Rodeo should be applied
in early spring when reed canary grass is
green and most native wetland species are
still dormant. The area should be checked
after spraying, and any surviving reed can-
gary grass should be sprayed the following
spring. Dalapon and Amitrol also report-
edy kill canary grass, although no Illinois
natural area managers were found that have
experience with these herbicides. All three
herbicides are licensed for use in aquatic
areas. Rodeo and Amitrol are nonselective
erbicides that will kill all vegetation con-
tacted. Dalapon selectively kills grasses
and monocots, but not broadleaf plants.
Spraying foliage with Roundup (a forma-
lization of glyphosate) mixed according to
label instructions and subsequent burning
of dead residue has been moderately effec-
tive in northern Illinois. However, Round-
up is not licensed for use in aquatic areas
and should only be used in areas without
standing water.

When using any herbicide, precautions
should be taken to avoid contacting nontar-
get species. Do not spray so heavily that
herbicide drips off the target species. The
chemical should be applied while backing
away from the treated area to avoid contact-
ing wet herbicide. By law, herbicides may
be applied on public properties only ac-
cording to label directions and by licensed
herbicide applicators or operators.

Where practical, it may be beneficial to sow
seed of nearby native grasses and forbs after
reed canary grass has died through control
efforts or gone dormant. Seed of nearby
native grasses and forbs should be collected
when ripe and then raked into the sod as
soon as the reed canary grass has died. This
practice should be used in conjunction with
prescribed burning because few native spe-
cies can outcompete reed canary grass in
wetlands in the absence of periodic fire.
reed canary grass reportedly will even
crowd out cattails. Prescribed burning al-
ows native species that are present or seed-
ed-in to compete successfully.

Several other control methods are ineffect-
ive or problematic. Mowing probably is
not effective as a control measure. It is
probable that no herbicides are selective
enough to be useful in high-quality areas.
Grazing is probably not a practical method
of control in wetland areas where canary
grass usually is a problem. No biological
controls are known that are feasible in
natural areas. Many wetlands are drier now
than historically, and restoring water levels
may be a means of controlling reed canary
grass.

REFERENCES
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