

B9

Broad-leaved dock

Scientific name:

Rumex obtusifolius

Perennial plant (herb) in the Knotweed family (Polygonaceae)

B9.1 What is Broad-leaved dock?

- Long-lived (perennial), polycarpic (flowers many times) competitive dominant.
- Growth from deep tap-root can produce dense cover which dominates sites if left unmanaged.
- Docks (*Rumex* species; spp.) can be difficult to identify. Larger Docks growing from deep tap-roots and rhizomes can be difficult to manage in many amenity and agricultural settings.
- Many species, sub-species and hybrids of native and non-native Docks found in the UK and Ireland.



B9.2

What does Broad-leaved dock look like throughout the year?

Broad-leaved dock



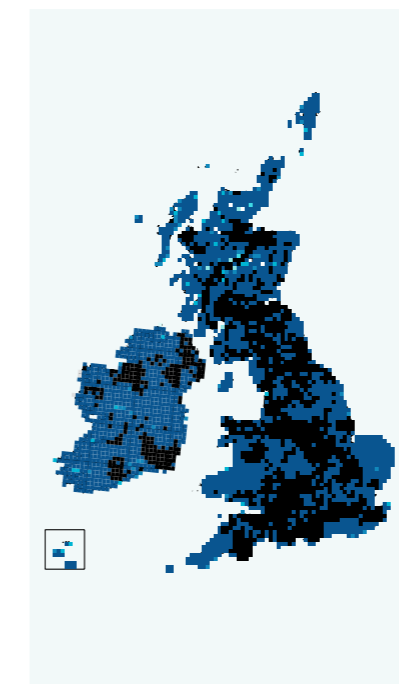
B9.3

How does Broad-leaved dock grow and spread?

- > Reaches up to 1.2m tall in full growth.
- > Limited direct rhizome (root) expansion, though vegetative (asexual, clonal) dispersal via fragments of root material created by human activities (e.g. agricultural practices) and natural disturbance processes (e.g. flooding) is common. Spreads sexually by seed – up to 60,000 seeds can be produced per year (two crops in larger plants). Seeds have small spines which allow attachment to animals (and people) assisting dispersal and are highly persistent.
- > UK distribution may still be increasing.

B9.4

Where does Broad-leaved dock grow?



- Pre 1930
- 1930 - 1949
- 1950 - 1969
- 1970 - 1986
- 1987 - 1999
- 2000 - 2009
- 2010 - 2019
- 2020 onwards

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Common habitats where Broad-leaved dock is found include:

- > Waste ground
- > Rivers and other watercourses (riparian habitats)
- > Roadsides
- > Railway embankments and cuttings
- > Agricultural areas (pasture)
- > Meadows
- > Woodland (disturbed)

The map shows where Broad-leaved dock is found in the UK and Ireland.



Timing of Broad-leaved dock growth stages and treatment application

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Growth stages: approximate – weather and altitude dependent	Germination			■	■			■	■	■	■		
	Seedling plant growth	■	■	■	■	■	■	■	■	■	■	■	■
	Maturity (maximum height)					■	■	■	■	■	■		
	Flowering						■	■	■	■			
	Seed production							■	■	■	■	■	
Treatment application – physical	Cultural & physical	■	■	■	■	■	■	■	■	■	■	■	■
	Biological (grazing)												
Treatment application – chemical	Selective (e.g. 2,4-D amine, triclopyr, aminopyralid)		■	■	■	■							
	Non-selective, non-residual (glyphosate)		■	■	■	■	■	■	■	■	■		
	Non-selective, residual (e.g. flazasulfuron, iodosulfuron)		■	■	■	■							
Treatment notes	<p>Eradication using any control method is unlikely due to deep tap-roots (and rhizomes in other species of Dock) and persistent seedbank; however, effective long-term control and management is possible.</p> <p>Glyphosate-based herbicides are effective for control throughout the growing season. However, to achieve sustainable long-term control and management (reduce herbicide and labour requirements and CO₂ emissions), target application between May and September to poison the root system and minimise regrowth in subsequent growing seasons.</p> <p>Use selective herbicides to control above ground growth early in the growing season and retain the grass sward.</p> <p>Use a spray shield for herbicide spot treatments to minimise spray drift.</p> <p>In industrial areas integrate residuals into management programmes to reduce treatment frequency and lower labour requirements and CO₂ emissions associated with treatment.</p> <p>Physical control methods such as mowing can be used to reduce population density and improve access, though there are higher labour requirements and CO₂ emissions associated with these treatments. While smaller Dock species may be killed by mowing, Broad-leaved dock will survive mowing and consequently control methods must be applied indefinitely. Individual plants can also be dug out by hand, though this is very labour intensive.</p> <p>Biological control methods such as grazing should not be attempted as Broad-leaved dock is unpalatable to livestock and horses.</p>												

Acknowledgements

Image acknowledgements

Map courtesy of the Botanical Society of Britain and Ireland (© BSBI 2021)

References

1. Grime et al. *Castlepoint Press* (2007)
2. Jones et al. *Neobiota* (2020)
3. Rose Warne (2016)
4. Stace *C&M Floristics* (2019)