Weed focus: Dock

EXTENSION

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Two forms of dock are seen in area pastures, curly dock and broadleaf dock; however, curly dock is more common. They look VERY similar. Their leaves are the distinguishing factor. Curly dock (*Rumex crispus* L.) leaves tend to be narrower, more lanceolate, and have "curly" edges. Broadleaf dock (*R. obtusifolius* L.) has broader leaves whose edges are not as curly (see photo). Broadleaf dock plants tend to grow larger, but are not always so.



Both dock species are erect, cool-season

perennials native to western Europe. They have deep taproots, making them resilient plants in drought and to mowing. These plants appear as rosettes when not setting seed. Seed heads are upright stalks with complex, greenish flowers that bear many seeds. The stalks turn dark brown at maturity and then die back. (See life cycle photos, below.)





Dock plants are edible for humans; however, it is important to know that plants of both species contain oxalates, which bind calcium and can have toxic effects if consumed excessively. Leaves can be eaten raw or cooked and are best when removed from the plants early, before the flower stalk emerges. They can be sautéed or boiled, like any greens. They may be blanched and frozen. Broadleaf dock is said to be more bitter than curly dock.

For livestock (including poultry), oxalates can cause gastric upset and/or hypocalcaemia if consumed in large quantities. Hypocalcaemia is especially detrimental to laying hens since they need extra calcium for egg shell formation. High levels of oxalates can result in damage to kidneys; however, consumption of some dock can be tolerated if other forages are also available. Reports of toxicity under normal pasture conditions are relatively rare. Because oxalates render the plants unpalatable, they are often avoided by grazing animals. Oxalates pose a greater toxicity risk during drought, when they tend to be more concentrated in dock plants. It isn't known how oxalate concentrations vary over the life of the plant.

<u>Controlling dock in pastures</u>: Because of its large taproot, dock can rarely be pulled up successfully. Since animals tend to avoid it, it can quickly take over pastures. There are no biological control agents and tillage and mowing are often not possible. Chemical control is the most effective means of reducing dock populations. Agents that kill broadleaf plants can be applied; however, timing is important. They should be applied to rapidly growing, small plants, in the spring. Applications to larger plants are not as effective. These chemicals include 2, 4-D; dicamba or dicamba mixed with 2, 4-D; paraquat plus 2, 4-D; metsulfuron products, and triplopyr. Follow label instructions. Glyphosate will also kill dock plants; however, it is non-selective and will kill most beneficial species it contacts as well. Because of its deep root system, docks present a control challenge, even with herbicide application. It is extremely important that they not be allowed to go to seed if any hope for control is to exist.

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