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PEST FACTS

Alligator Weed

Alternanthera philoxeroides

Alligator weed is a pest plant in Northland and cannot legally be propagated or distributed in any way, including being carried via machinery. It is one of the major weeds of Northland. The long term goals are to contain the plant and reduce its impacts within its current area of infestation and to prevent it from invading Northland's pristine waterways.

ORIGINS

Alligator weed is native to Brazil. It arrived accidentally near Dargaville in ship's ballast in the 1890s and was first recorded in the wild in 1906. It was then unintentionally spread by drain digging equipment throughout the Northern Wairoa and to many other locations in Northland. Once established in catchments, it quickly spread downstream and outwards onto dry land. Today it is a major weed of crops and the environment, and also affects livestock health.

Note floating pink stems



DESCRIPTION

Alligator weed is a perennial aquatic or terrestrial herb with long, fibrous roots. The stems are usually creeping but are upright at the tips, soft, hollow, rooting at nodes and usually pinkish in colour. Over water the stems can be up to 10 metres in length and form large floating mats. On land the plant is normally under 700 mm high. The leaves are slightly waxy, 3-13 x 1-4 cm, dark green, slightly pointed and arranged in opposite pairs. The flowers are white, in dense 1-2 cm clusters (clover-like), on conspicuous stalks, produced from December to February. No seed is formed in New Zealand. Plants growing over water are often subjected to conspicuous summer-autumn chewing damage by the Agasicles beetle.

Alligator weed can be easily confused with the related nahui (*Alternanthera denticulata*), a low-growing herb found in damp pastures. It is very similar except that in nahui all parts are smaller,

eg leaves 10-40 x 2-8 mm, flowers 5-8 mm diameter. Alligator weed is also occasionally mistaken for willow weed and water pepper (*Polygonum* species) but the differences are easy to spot. Willow weed and water pepper have a reddish tinge to all parts, the leaves are narrow, very pointed and the flowers are tiny and pink.

DISTRIBUTION

Because no seed is set, alligator weed can only spread via broken stem sections. However almost any piece of stem is able to root and regrow in wet or dry habitats. Stems spread outwards and broken fragments are carried by water to new sites. However, the most significant method of spread is via contaminated diggers and farm machinery as they transfer fragments into new waterbodies and farms. Eel nets, boats and trailers also spread alligator weed.

THREAT TO NORTHLAND

Alligator weed forms dense stands, excluding most other species. In crops its growth rate, competitive nature, rapid spread via cultivation and resistance to selective herbicides make it one of the very worst economic weeds. The plant is toxic to mammals, causing photosensitisation and facial eczema-like effects, particularly in young stock. In damp pasture and wasteland the plant can become dominant and is frequently grazed, especially when wilted.

The plant is also an impediment to drainage, slowing water flows and causing sediment to accumulate. This raises watertables and contributes to flooding. Great masses of weed are often dumped on banks and in pump station intakes. Controlling alligator weed is extremely difficult as most herbicides are ineffective and are not permitted to be used over water in any case.

Alligator weed growth is very rapid from spring to autumn and virtually ceases over winter. The large weed mats rot, causing stagnation in dams

and other still waterbodies. However the greatest threat is to wildlife and native plant ecosystems. Alligator weed replaces most native aquatic and marginal plants, and stagnating water kills fish.

CONTROL

Mechanical control is largely ineffective as stem fragments left behind quickly resprout and dredgings grow where they are dumped. Small infestations can be controlled by covering with heavy polythene for 3-6 months. However this option is seldom practicable. The *Agasicles* beetle and *Vogtia* moth, released as biocontrol agents, are partially effective where the weed is growing over water. They are less effective over land, where herbicides are better suited. For a full description of recommended treatment methods, herbicides currently available and land occupier's responsibilities, please refer to Northland Regional Council Pest Update 10A - Alligator weed.

WHAT CAN YOU DO?

Learn to identify alligator weed. Make sure machinery entering your property has been thoroughly cleaned.

For more information, contact Northland Regional Council Land Operations staff at one of the addresses below.



Floating mass on pond

REGIONAL COUNCIL OFFICES



WHANGAREI: Quay and Robert Streets, Private Bag 9021, Whangarei, Phone (09) 438 4639, Fax (09) 438 0012

OPUA: Beechy Street, Phone (09) 402 7516, Fax (09) 402 7510

DARGAVILLE: 61B Victoria Street, Phone (09) 439 6662, Fax (09) 439 1562

KAITAIA: 192 Commerce Street, Phone (09) 408 1451, Fax (09) 408 1689