Himalayan balsam - *Impatiens glandulifera*

A tall, attractive, annual herb with pink-purple flowers and explosive seed heads. Introduced as a garden plant in the early 19th century it is now widespread in the UK, especially along urban rivers. Out-competes native species in ecologically sensitive areas, particularly river banks. Where it grows in dense stands along river banks it can impede flow at times of high rainfall, increasing the likelihood of flooding. Die back of extensive stands over winter can leave river banks bare and exposed to erosion.

**Management Options:**

**Chemical Treatment**

Glyphosate at 6l/ha treatment of young (preferably < 1m) growth by weedwipe or knapsack sprayer.

**Suitability:** Large dense infestations, during the initial stages of long-term treatment. Encouraging good sward growth reduces the risk of erosion, so this method is usually replaced by control methods with less non-target damage.

**Equipment:** Knapsack sprayer. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

**Efficiency:** Good.

**Constraints:** Requires AqHerb01 approval from the Environment Agency and NPTC PA1 & PA6 qualifications. Potential non-target damage.

**Chemical Treatment**

2,4-D Amine at 6l/ha treatment of young (preferably < 1m) growth, by weedwipe or knapsack sprayer.

**Suitability:** Sites that have dispersed growth and/or are prone to erosion, and therefore require a selective herbicide to protect the sward.

**Equipment:** Knapsack sprayer. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

**Efficiency:** Good, particularly if retaining a grass sward is an important priority.

**Constraints:** Requires AqHerb01 approval from the Environment Agency and NPTC PA1 & PA6 qualifications. Potential non-target damage to broadleaf species.

**Mechanical Cutting**

Regular strimming, brush-cutting or flailing of stems, prior to seeding.

**Suitability:** Effective, if the stems are cut below the lowest node to avoid re-flowering.

**Equipment:** Strimmer, brushcutter, hook, flail, fork. Vehicle & trailer if not disposing at site. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

**Efficiency:** Good, but cutting must be below the lowest node to prevent flowering.
**Constraints:** Requires good access and appropriate methods for waste management.

**Manual Pulling**

Hand-pulling prior to seed formation and ensuring that waste material is either dried, burnt or carefully composted.

**Suitability:** If the site is not subjected to seed-fall from upstream or nearby unmanaged Himalayan balsam, control can be achieved in 2 years. Suitable for volunteer groups.

**Equipment:** Wheelbarrows, forks, rakes. Vehicle & trailer if not disposing at site. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

**Efficiency:** Good.

**Constraints:** Time-consuming, and requires good access.

**Time Scale**

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