Giant Hogweed - *Heracleum mantegazzianum*

Easily recognisable as the plant can grow up to 20ft tall with large leaves and a white flower head approximately the size of a dustbin lid. Introduced as an ornamental plant in the late 19th century it is highly invasive and has spread throughout the UK, primarily favouring river banks. Contact with any part of this plant can cause blistering of the skin following exposure to sunlight. Other negative impacts include out-competing native flora, river bank erosion and increase in flood risk.

**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 is an important part of seedling suppression and reducing erosion, so this method is usually replaced by control methods with less non-target damage.

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

**Efficiency:** Good, but non-target damage to grass sward encourages further germination. After treatment, the site should be reseeded with a grass mix, preferably from local sources.

**Constraints:** Requires AqHerb01 approval from the Environment Agency and NPTC PA1 & PA6 qualifications. Potential non-target damage, which will reduce the ability of the sward to resist reseeding.

**Chemical Treatment**

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

**Suitability:** Areas in which there is a grass sward in close proximity, such as areas of dispersed giant hogweed colonisation.

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

**Efficiency:** Good, particularly against dispersed plants. This prevents damage to the grass sward, thus reducing seedling germination. After treatment, the site should be reseeded with a grass mix, preferably from local provenance sources.

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

**Chemical Treatment**

10/1 solution of glyphosate and water, injected below the first node after cutting the stem or into the stem using stem-injection applicators.
Suitability: Areas where avoidance of non-target damage to the surrounding sward, sensitive areas or reduced risk of damage to water quality is required.

Equipment: Adapted backpack sprayer or stem injection equipment. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

Efficiency: Good, but requires good PPE and working practices. If the sward is fragmented, the site should be reseeded with a grass mix, preferably from local provenance sources.

Constraints: Requires AqHerb01 approval from the Environment Agency and NPTC PA1 & PA6 qualifications. Time-consuming, and requires staff to work in close proximity to the plant.

**Mechanical Cutting**

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

Suitability: Sites which are unsuitable for herbicide application due to organic, water quality or sensitive area constraints. Areas in which there is a grass sward in close proximity, such as areas of dispersed giant hogweed colonisation.

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: Moderate, but requires good PPE and working practices. After treatment, the site should be reseeded with a grass mix, preferably from local provenance sources.

Constraints: Requires good access and appropriate methods for waste management.

**Manual Digging**

Use a spade to cut 15cm below ground, severing the tap-root, or digging out the top 15cm of tap-root.

Suitability: Smaller infestations, or sites that are unsuitable for herbicide application due to organic, water quality or sensitive area constraints. Areas in which there is a grass sward in close proximity, such as areas of dispersed colonisation.

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

Efficiency: Good, but requires good PPE and working practices. If the sward is fragmented, the site should be reseeded with a grass mix, preferably from local provenance sources.

Constraints: Time-consuming, and requires staff to work in close proximity to the plants.

**Time Scale**

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