

# Water Primrose - Ludwigia grandiflora

An invasive non-native plant from South America which has become a serious pest in other countries, including France, where it smothers water bodies reducing the numbers of native species and potentially increasing the risk of flooding. It has started to be found in some parts of England and Wales.

# **Management Options:**

## **Chemical Treatment**

Use Glyphosate at 6l/ha. The efficiency is greatly increased with use of the adjuvant TopFilm at 1l/ha.

- Suitability: Good for sites which have poor access for mechanical/manual removal, or as a treatment following mechanical removal. Particularly useful for terrestrial growth, thus avoiding deoxygenation problems.
- **Equipment**: Knapsack sprayer, preferably with a long-lance. Life jacket and any other personal protective equipment deemed necessary after risk assessment.
- Efficiency: Good efficiency, but treatment likely to continue for at least 3 years
- **Constraints:** Requires AqHerb01 approval from the Environment Agency and NPTC PA1 & PA6 qualifications. Potential damage to non-targets and for treatments in water. There is a risk of deoxygenation if large decomposing biomass is not removed.

#### Mechanical Dredging

Often used as a prelude to other treatments. Reduces biomass at heavily infested sites. The location should be netted to retain propagules.

- Suitability: Sites which are densely infested and have good access.
- **Equipment**: Digger/swing-shovel, dumper/tractor & trailer. Stop-nets and sweep nets. Life jacket and any other personal protective equipment deemed necessary after risk assessment.
- **Efficiency:** Good, if propagules can be contained.
- **Constraints:** Requires good access and appropriate methods for waste management. Silts may contain heavy metals and other contaminants. Damage to habitats of sensitive species, such as water voles and nesting birds, should be avoided.

#### Manual Hand-Pulling

Dispose of pulled material by composting away from water habitats.

- **Suitability:** Particularly relevant for smaller infestations, but can be very effective against any size of infestation, depending on the resources and time available. Suitable for sites with good access or sensitive areas where non-target damage is a potential risk. Suitable for volunteer groups.
- **Equipment**: Boats, drysuits, wheelbarrows, forks, rakes. Vehicle & trailer if not disposing at site. Stop-nets and sweep nets. Life jacket and any other personal protective equipment deemed necessary after risk assessment.

Efficiency: Good, particularly for small accessible infestations.

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

### Water Level Management

Maintain a constant water level, or minimise the level of fluctuation, to reduce the spread of localised infestations.

- **Suitability:** Suitable for sites that have the capacity to maintain a constant water level as a prelude to, or in conjunction with, other forms to plant management.
- Efficiency: Good, if it can be employed easily at the site in conjunction with other control techniques.

**Constraints:** Only reduces spread and of limited applicability to most sites.

#### Time Scale

|             | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Chemical    |     |     |     |     |     |     |     |     |     |     |     |     |
| Dredging    |     |     |     |     |     |     |     |     |     |     |     |     |
| Pulling     |     |     |     |     |     |     |     |     |     |     |     |     |
| Water Level |     |     |     |     |     |     |     |     |     |     |     |     |