WSU Long Beach Knotweed Research

WASHINGTON STATE UNIVERSITY EXTENSION

World Class. Face to Face.

Research Objectives – Bohemian Knotweed

- Herbicide Tank Mixes
 - Imazapyr
 - Imazapyr + glyphosate
 - Imazapyr + Milestone
 - Glyphosate
- Sequential herbicide combination
 - Spring Milestone followed by imazapyr
- Salinity tolerance

Bohemian Knotweed Control with Herbicide Combinations Summer 2008 Application



H=Habitat, M= Milestone

A tank mix of Milestone might improve long term efficacy Bohemian Knotweed Control with sequential herbicide treatments Spring + Summer 2009 Application



An early Milestone treatment by itself is inadequate, but combined with summer imazapyr is effective.





spring milestone + summer imazapyr on regrowth





Spring Milestone + Summer imazapyr

Treatment Combinations

Summer Imazapyr

Treatment when plants are reasonably sized would be so much easier!



Early Milestone treatment as a way to minimize non-target effect of summer imazapyr on Alder.

- Allows for better targeted application with less chemical during summer to a small canopy (regrowth)
- Milestone significantly less toxic to Alder than imazapyr



Early Milestone to create easy access spray paths in large areas



Ten feet spray path with early May Milestone @ 7 oz/ac

Spread of Bohemian Knotweed within an estuary - tolerance to salinity



How tough?

- Section of knotweed washed in estuaries during winter floods easily survive at least 6 weeks total emersion followed by 2 weeks with tidal emersion.
- Infestation or re-infestion of lower reaches of tidal influenced waters or islands is very likely.



6 weeks floating in ~ 25 ppt bay water + 2 weeks 7' tidal salt marsh

8 <u>2</u> 9 <u>9</u> <u>9</u> . <u>6</u> <u>2</u> .