Medusahead:
Latest Research and Control Efforts

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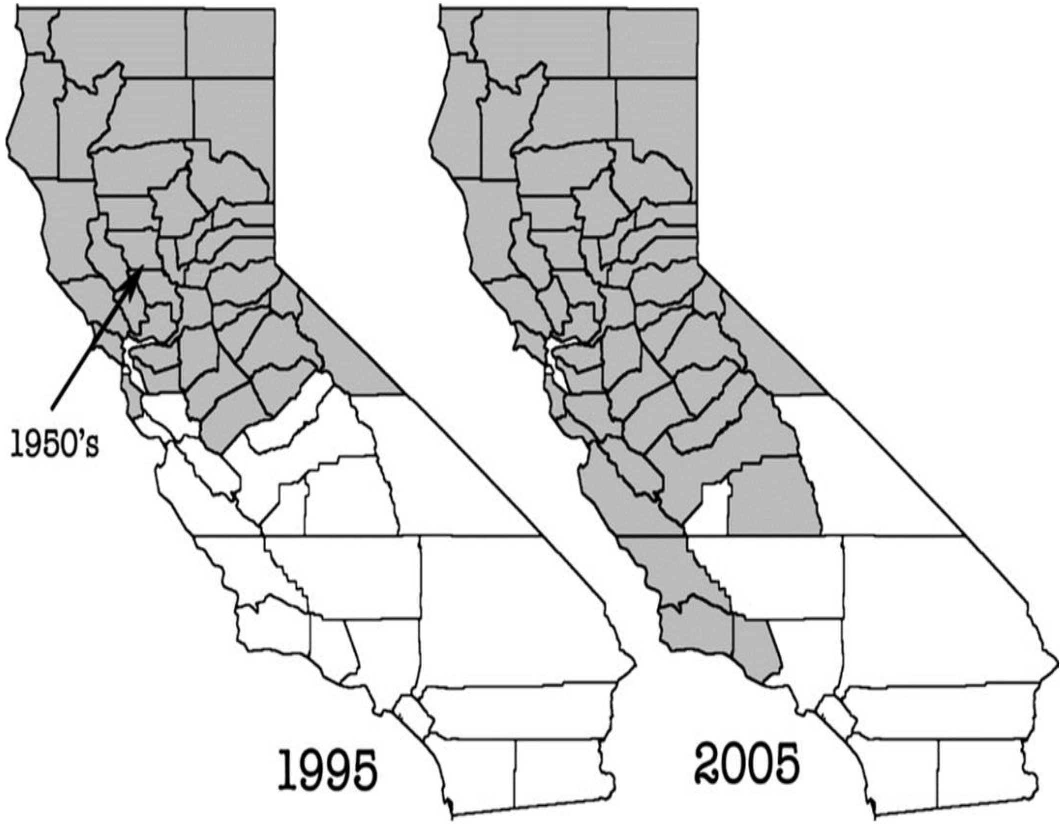
Medusahead (*Taeniatherum caput-medusae*)

Origin: non-native
Lifecycle: Annual 6-18” tall
Habitat: rangeland, woodlands, chaparral
Precipitation: >9”, but typically 12 – 24”
Soil – prefer finer soils

Historical perspective

- First introduced to U.S. in 1887
- Now: > 5 million acres in 17 western states



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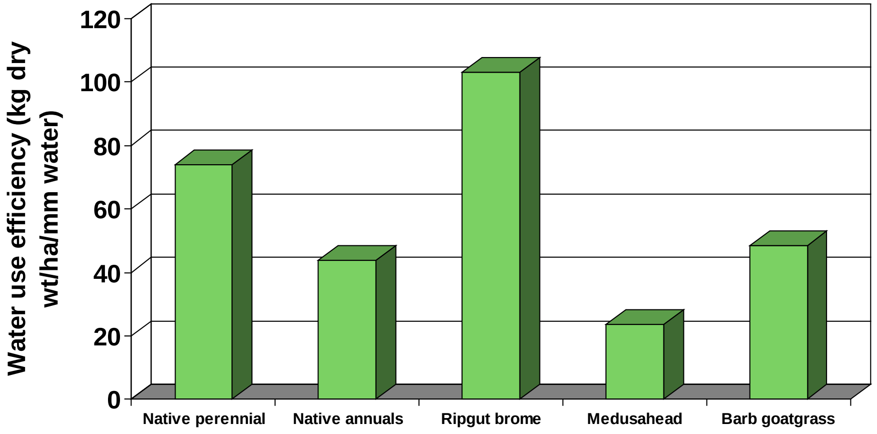
Invasive potential

- Early germination
- Stays green longer
- Produces lots of seeds
- Higher water efficiency
- Low nutritional quality–
    - Protein content declines fast with maturity
    - Silica content – low digestibility and decomposition
    - Thatch → Monoculture → low forage value
- Mechanical injuries to livestock



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Principles of Weed Control

- Identification
- Prevention vs control
- Invasion corridors
- Timing of control after invasion:
  - The sooner the better - effectiveness declines with time
  - Season: When most susceptible
- Plant physiology – eg phenology, seed bank viability

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Toolbox for Control

Method	Timing	Effect	Advantages	Disadvantages
Fire	Dry enough to carry fire Before seeds drop	Removes whole plants and seeds	Removes seeds And thatch	Some desirable plants also affected Less forage production following year
Herbicide: Milestone	Pre-emergency Spring	Prevents germination Reduce seed viability	Selective effect Low spring rates	Affects forbs Expensive Timing easy to miss
Herbicide: Glyshosate	Spring application	Kills all herbaceous plants	Kills plants To prepare for seeding	Non-selective Lower production year after
Grazing	Before it heads out (awns)	Removes forage and seeds	No need for additional equipment but cow	Narrow window Needed density very high Loss of animal condition
Mowing	Before seeds mature	Removes forage and seeds	Longer window than grazing	Not feasible in large areas or rough terrain
Seeding	Weed control early Fall seeding	Remove weeds Competition	Improves production New desirable species	Expensive Low establishment rates

Questions?