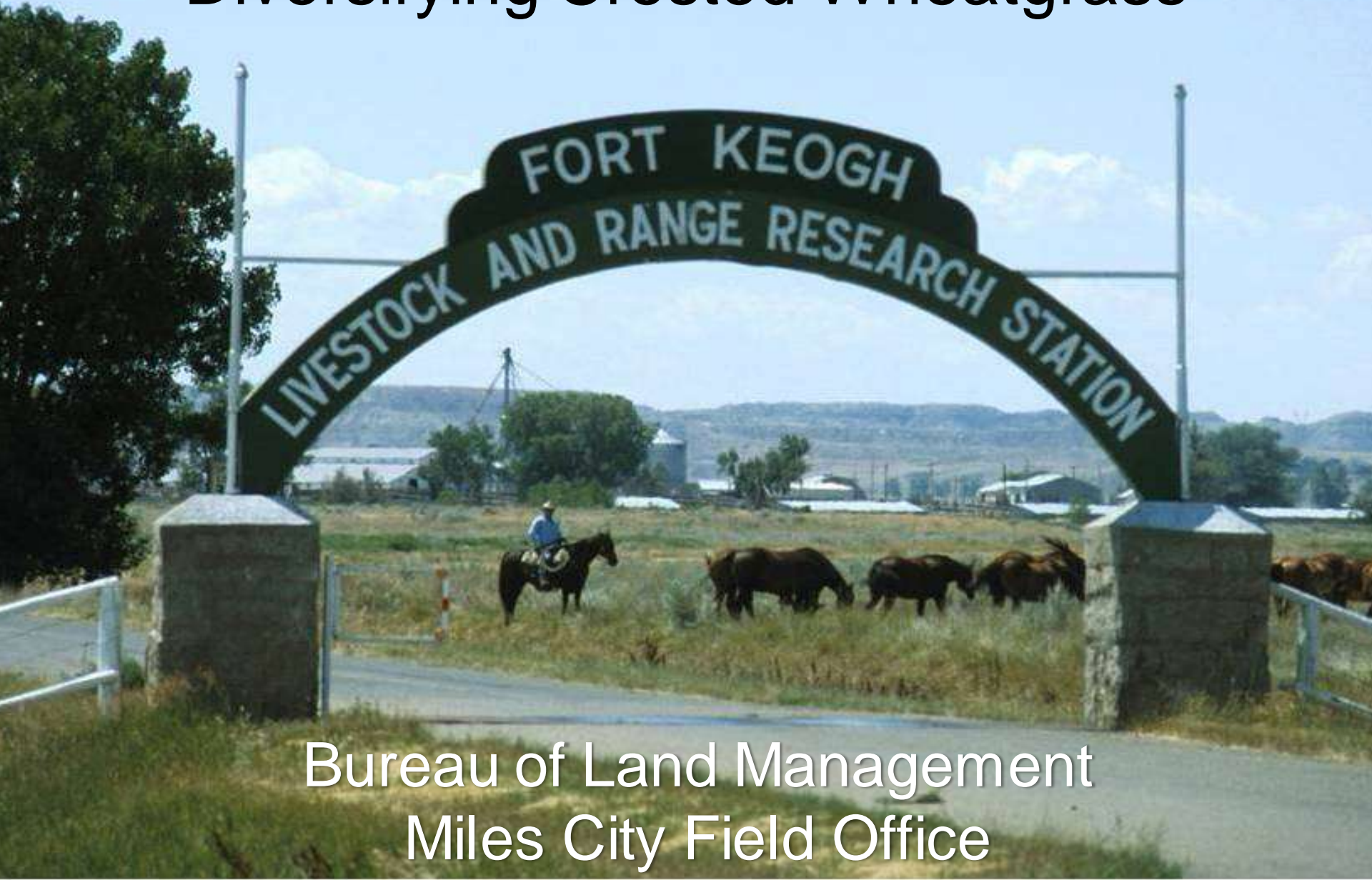


Fire, Herbicide and Disking Effects on Diversifying Crested Wheatgrass



Bureau of Land Management
Miles City Field Office

Treatments

Non-grazed > 20 yr

- Control
- Spring fire
- Disk
- Fire + Disk
- Herbicide + Disk

Grazed annually

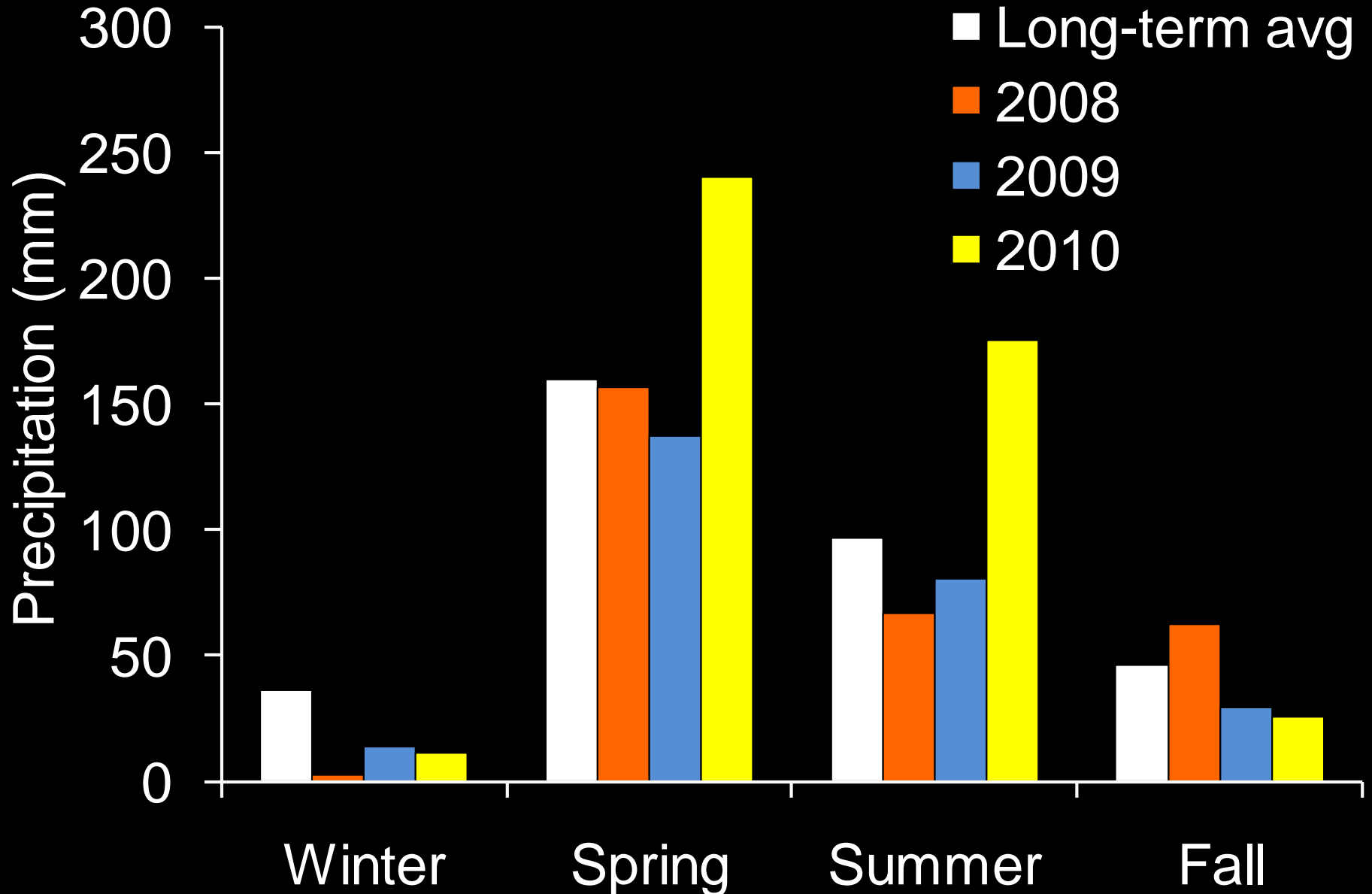
- Spring fire
- Disk
- Fire + Disk
- Herbicide + Disk
- Fire + Herbicide
- Fire + Herbicide + Disk

Treatment Applications

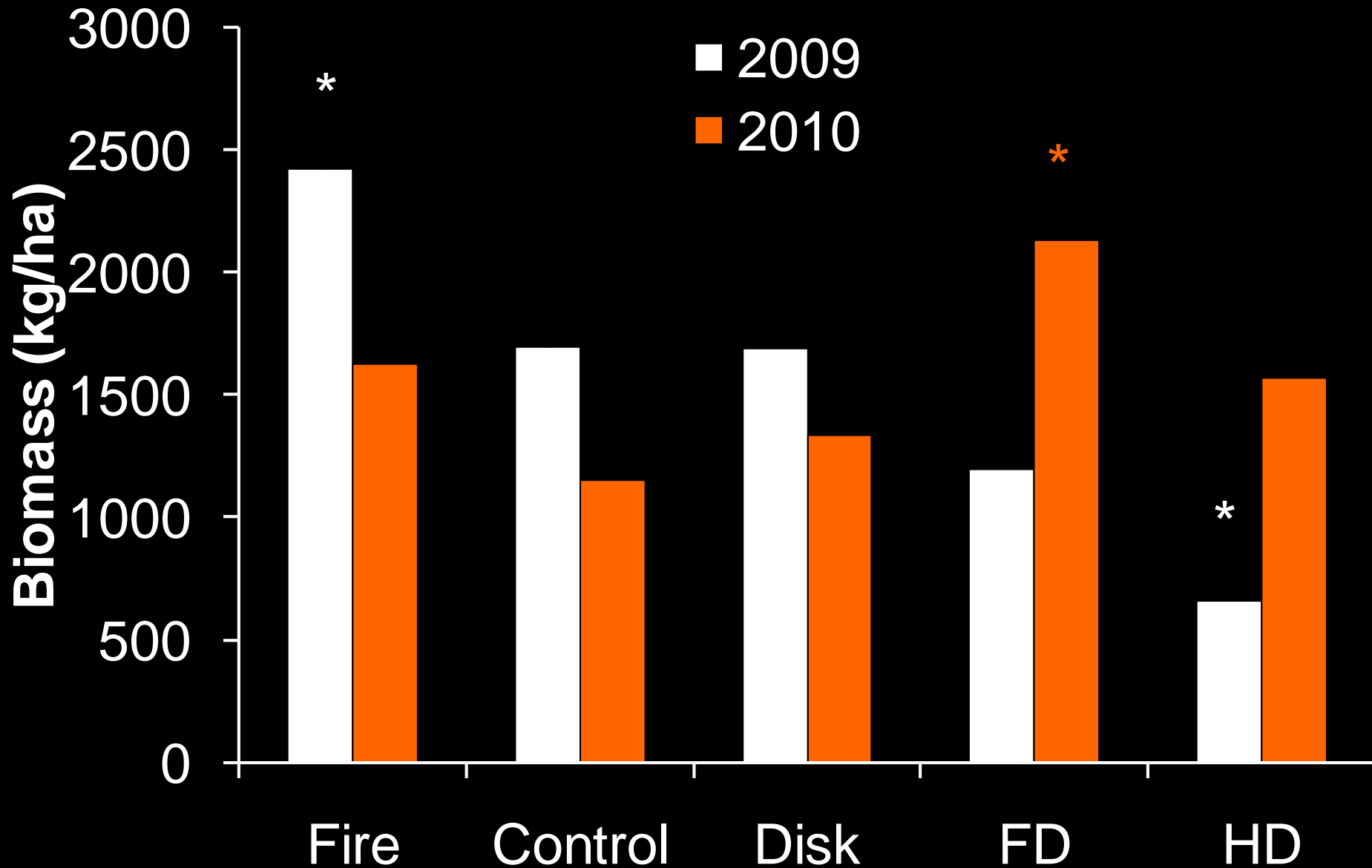
- Fires – late May, 3-leaf stage, 25 cm
- Herbicide – mid-June, 2.3 L/ha glyphosate
- Disk – early Aug, most plants cured
- Seeding – early Nov, broadcast, dragged
 - Green needlegrass, western wheatgrass, Sandberg bluegrass
 - Little bluestem, sideoats grama, blue grama
 - prairie coneflower, white prairieclover, blue flax



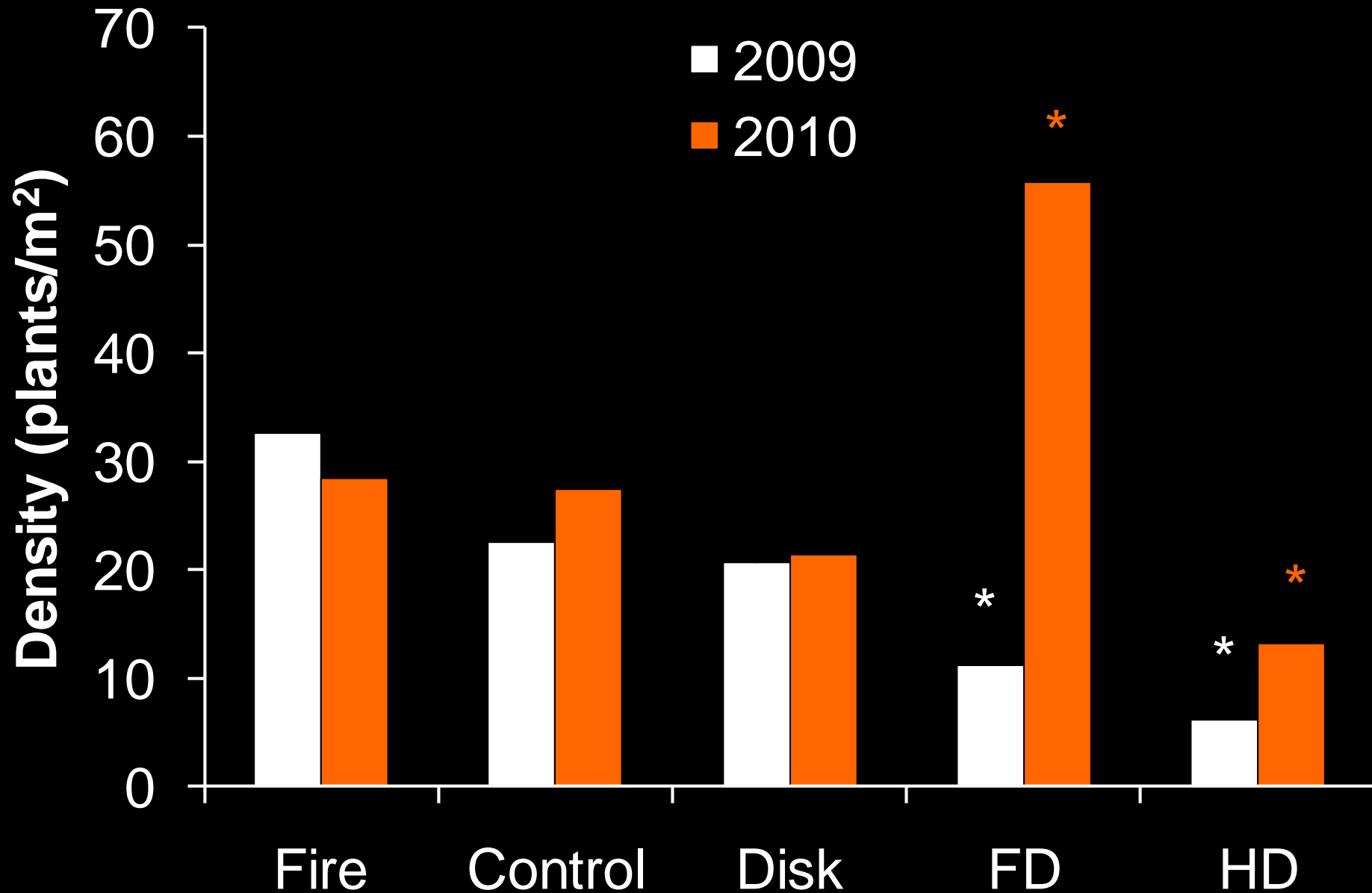
Seasonal Precipitation



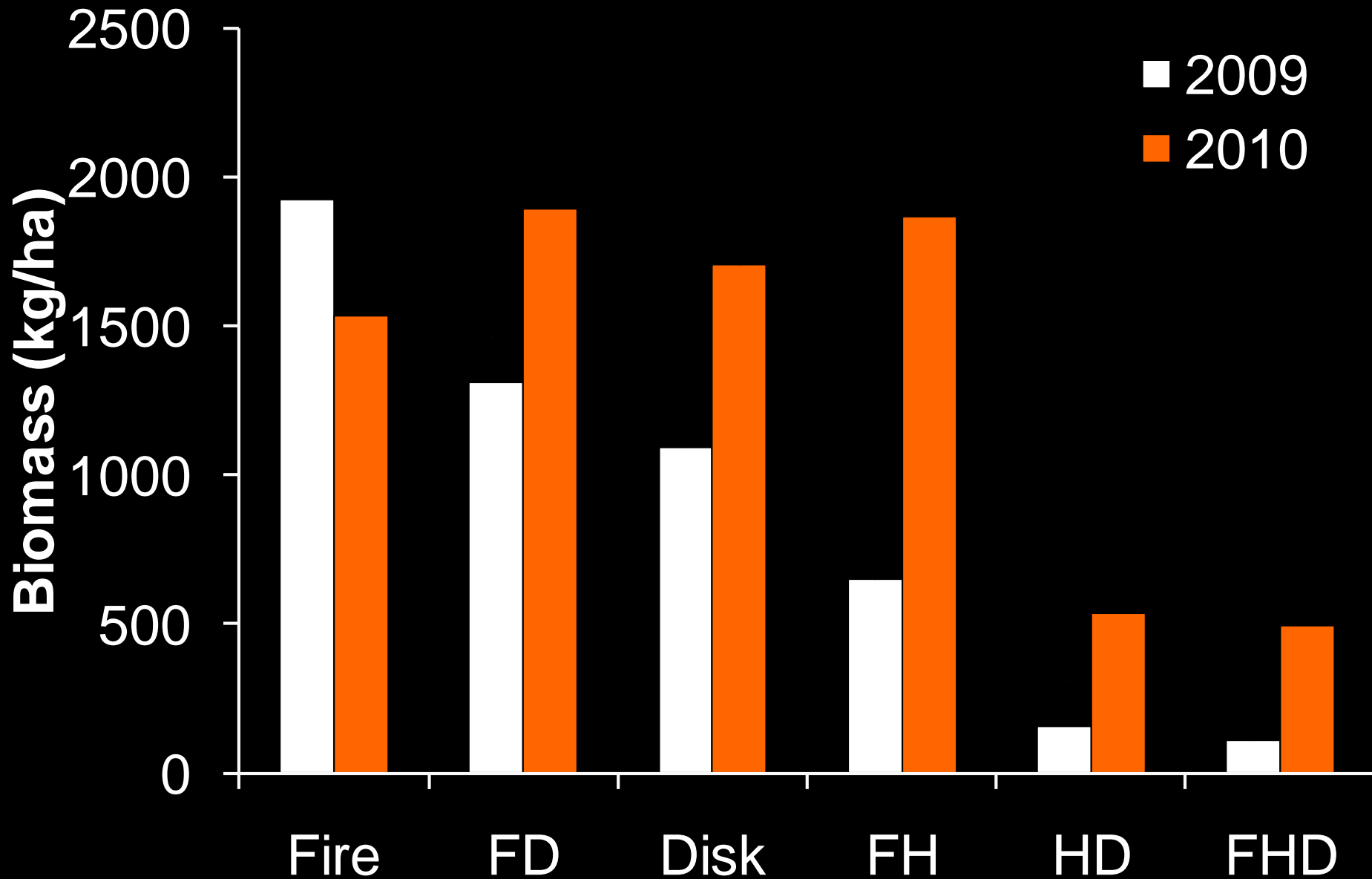
Non-grazed Crested Wheatgrass



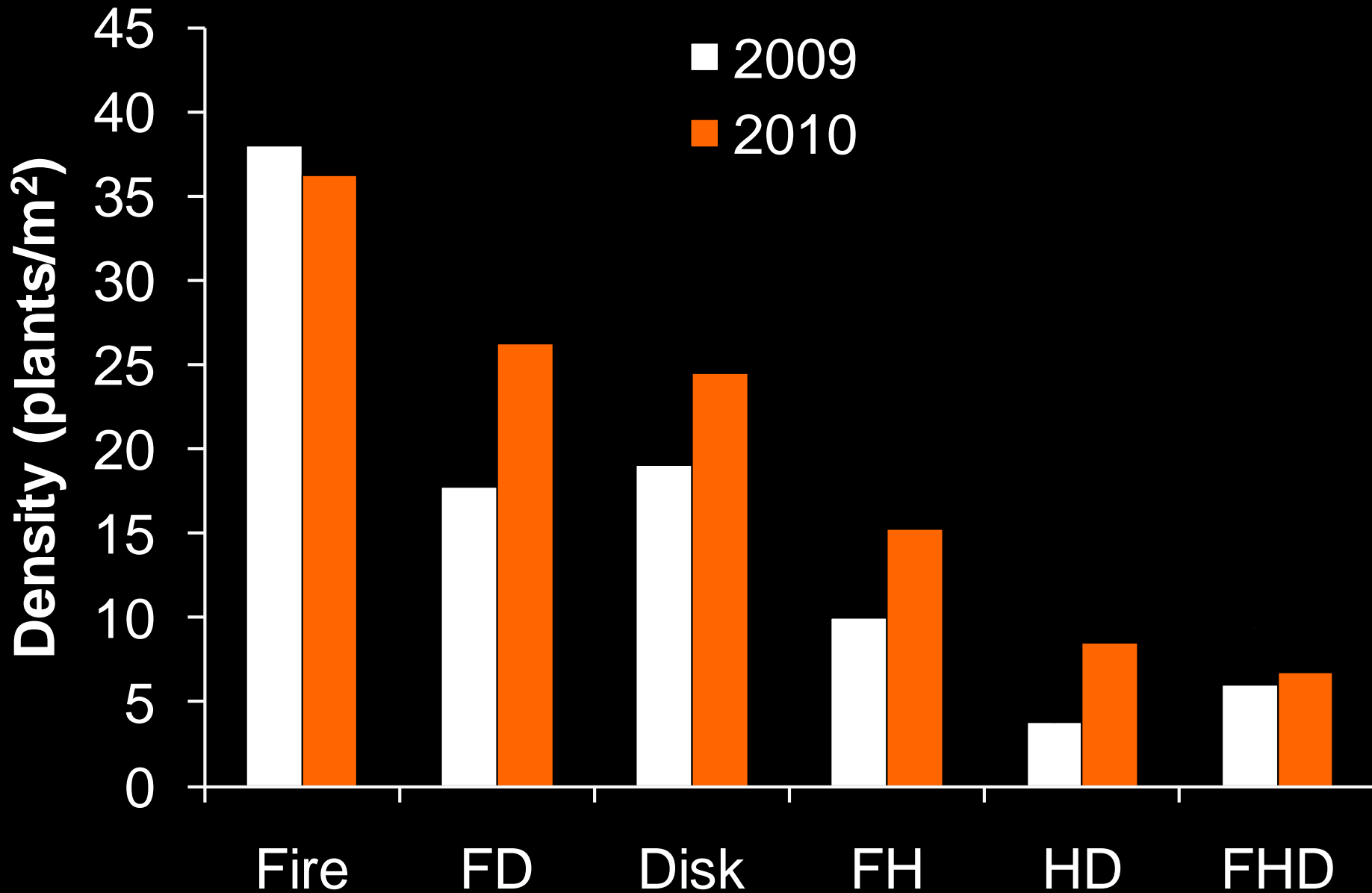
Non-grazed Crested Wheatgrass



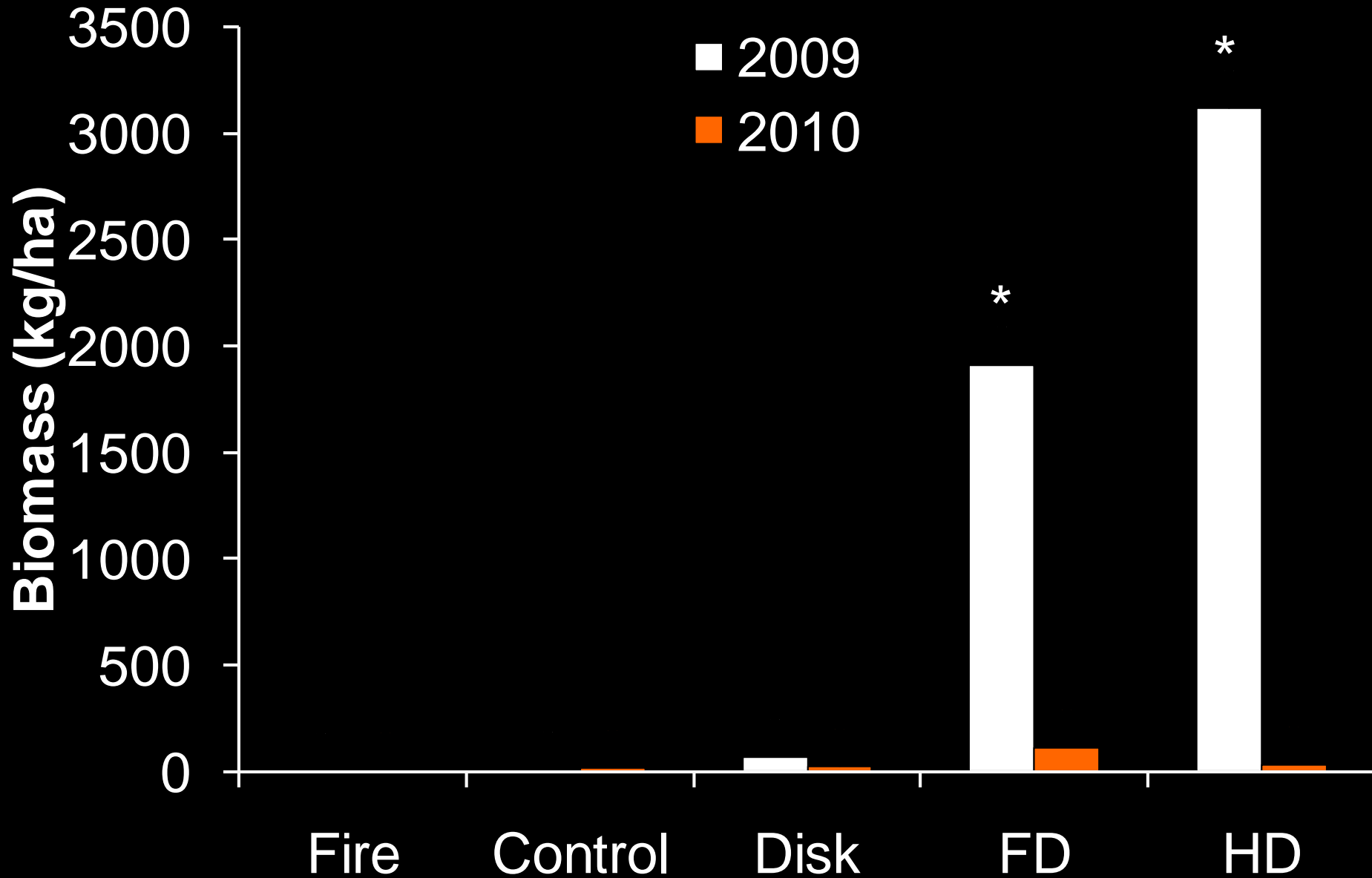
Grazed Crested Wheatgrass



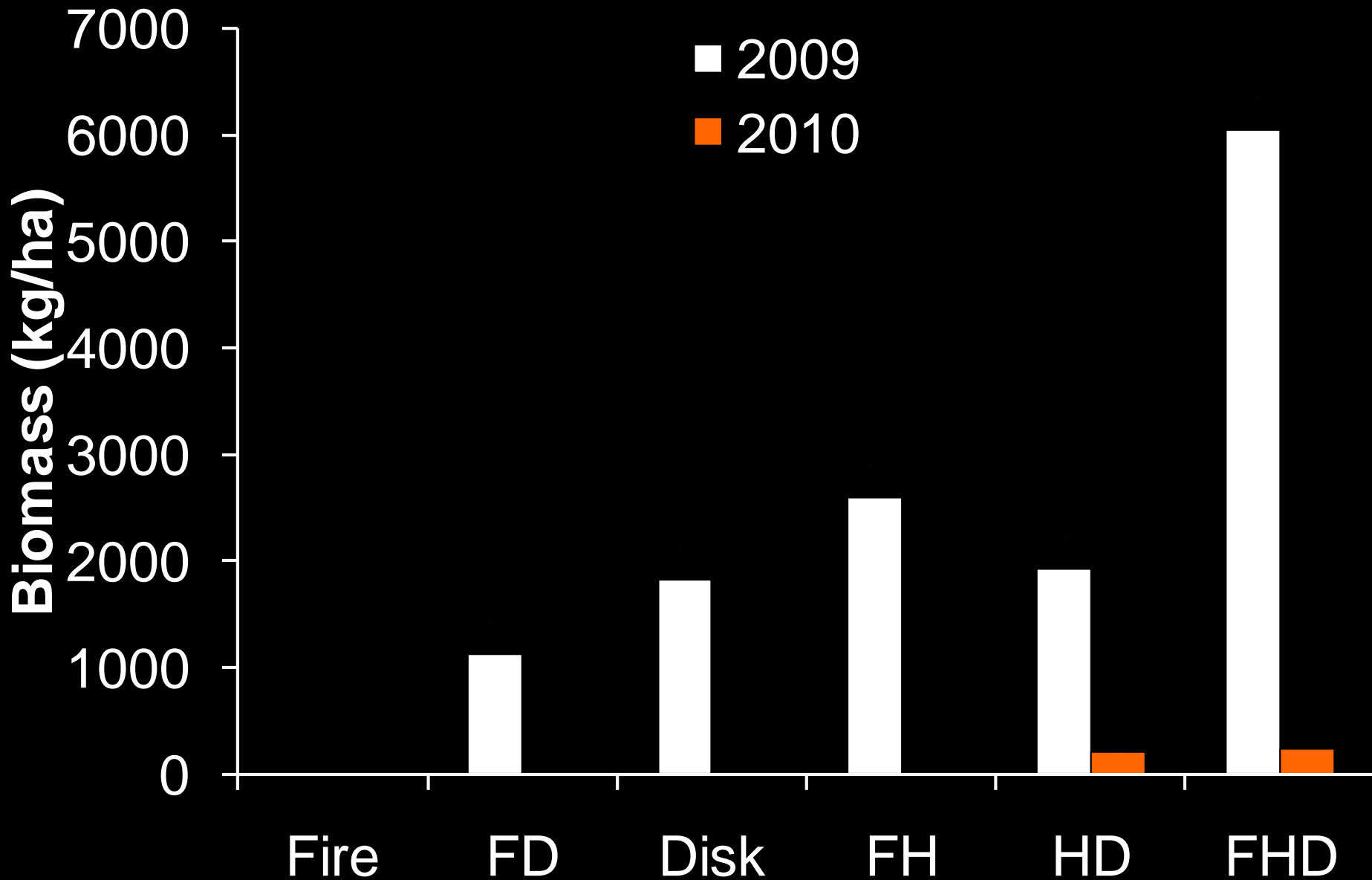
Grazed Crested Wheatgrass



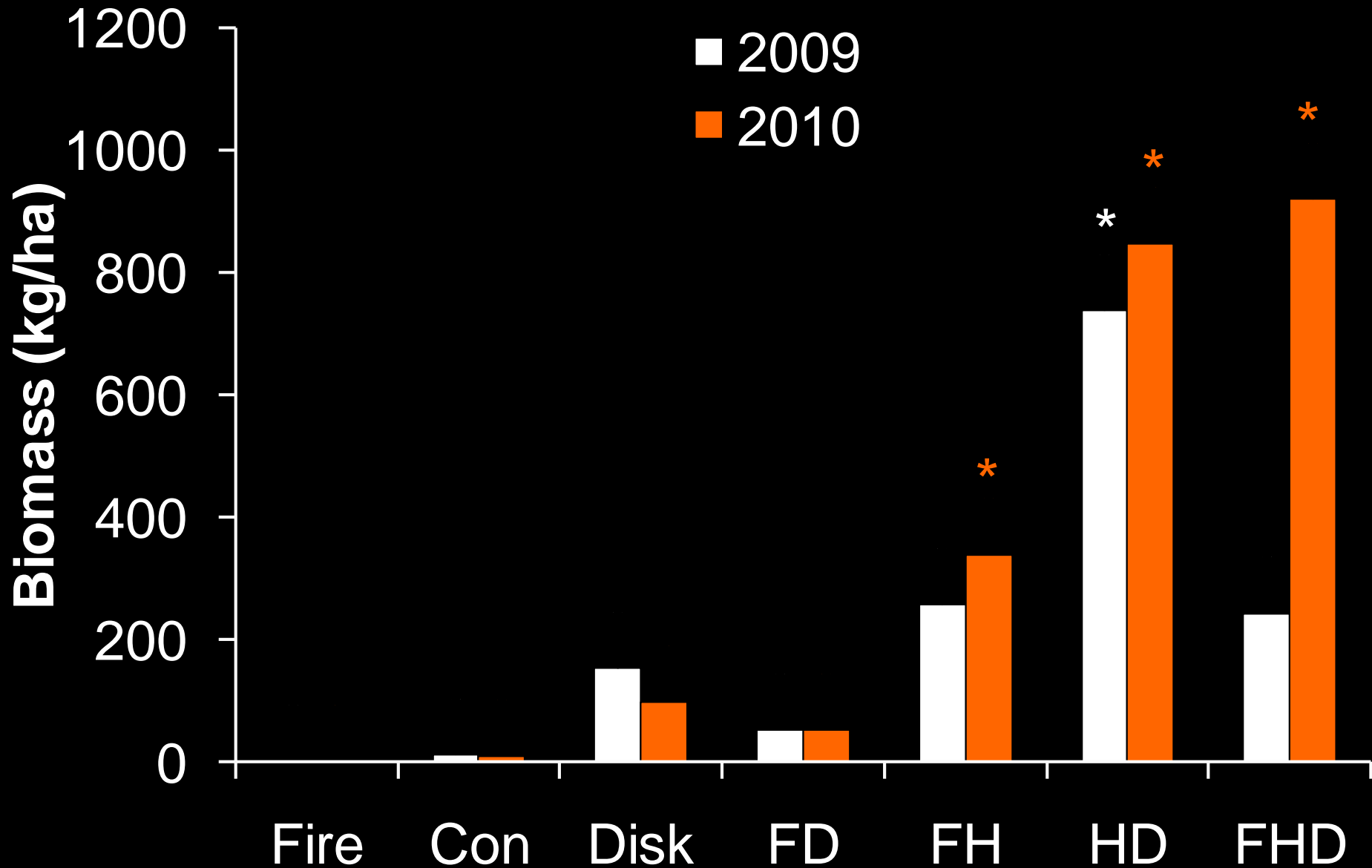
Non-grazed Annual Forbs



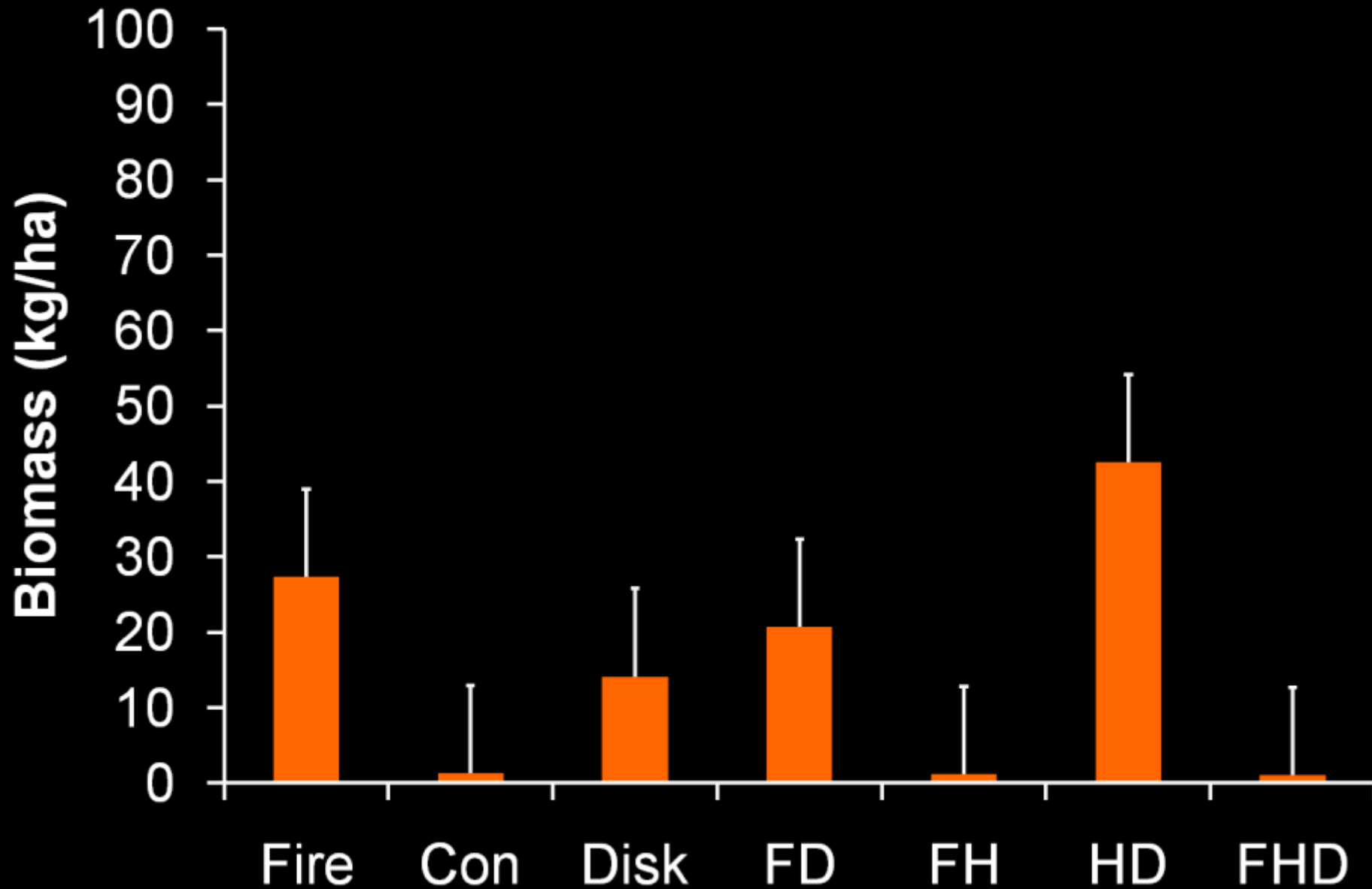
Grazed Annual Forbs



Annual Grasses

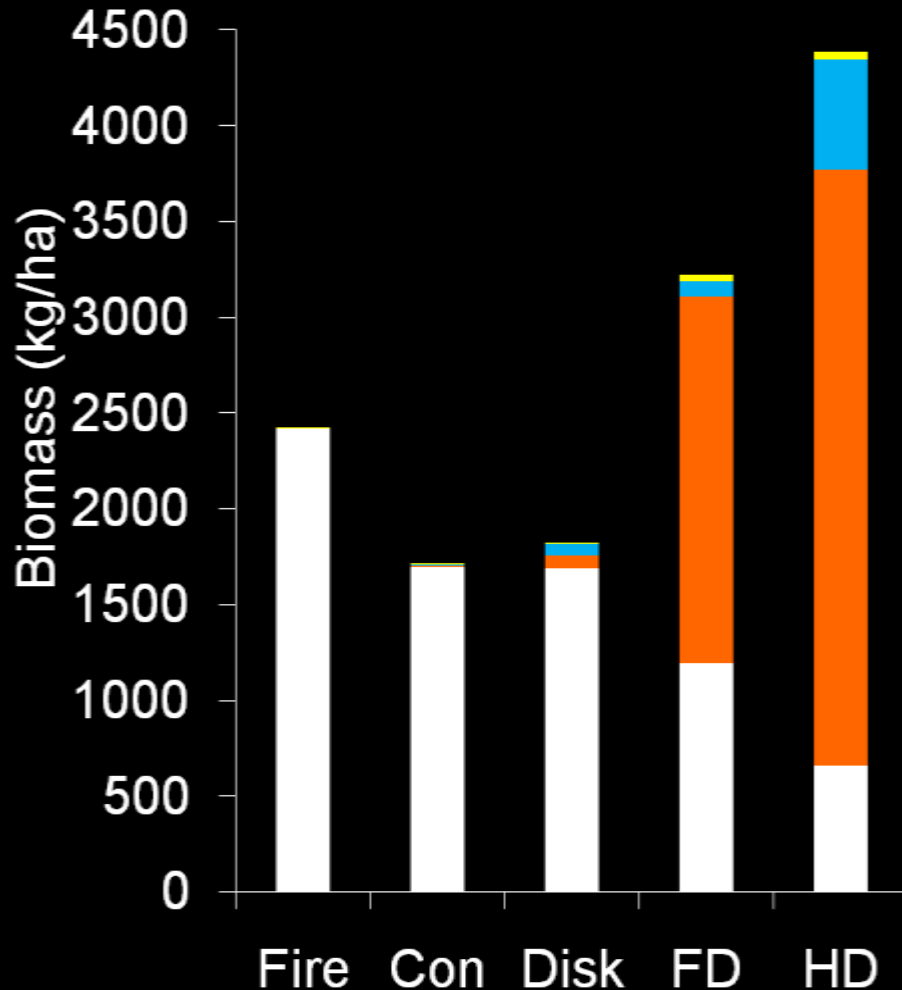


Perennial Herbage

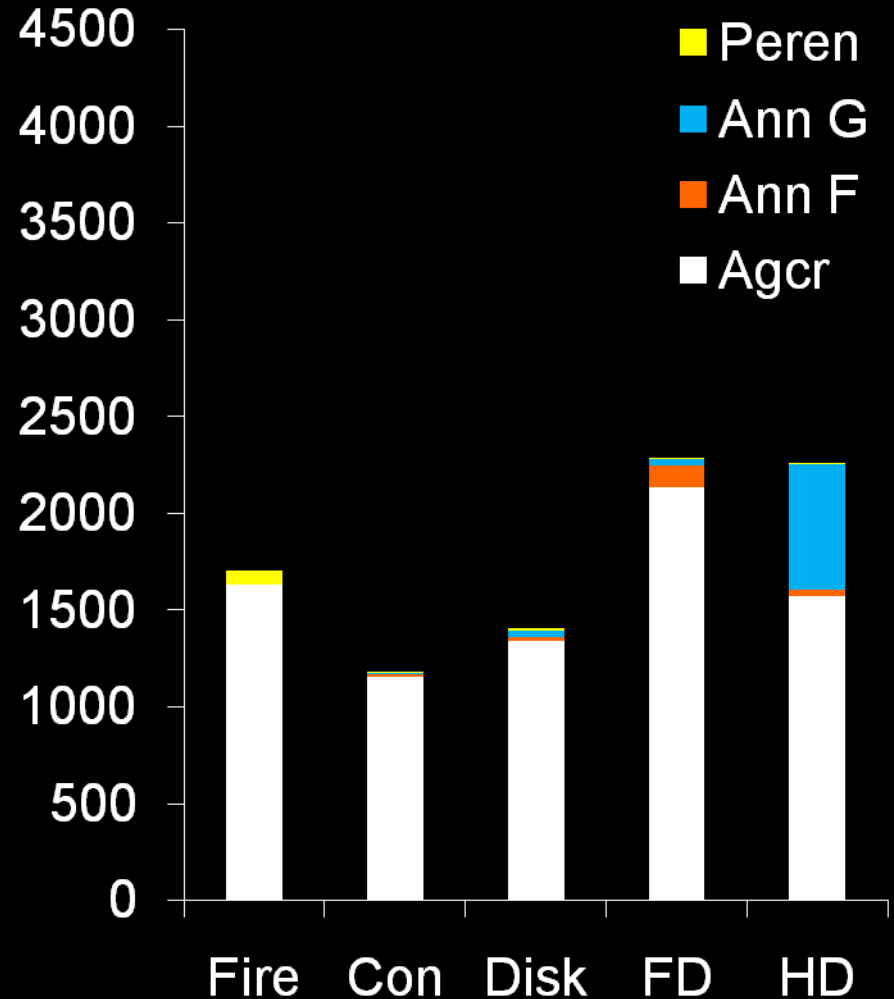


Non-grazed Composition

1 yr post-treatment



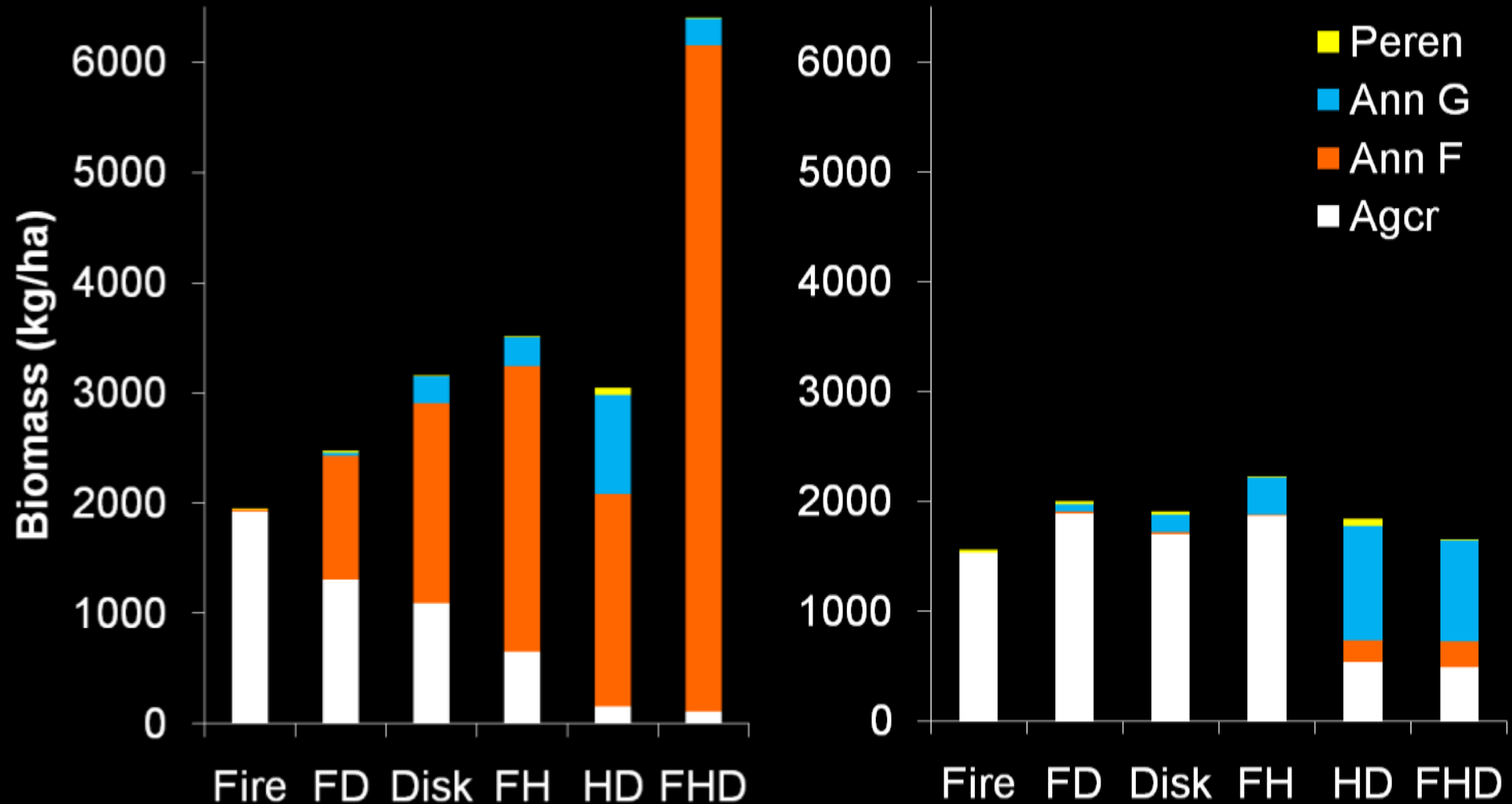
2 yr post-treatment



Grazed Composition

1 yr post-treatment

2 yr post-treatment



Kochia Bromus Alyssum Sisymbrium
Desired diversity?

