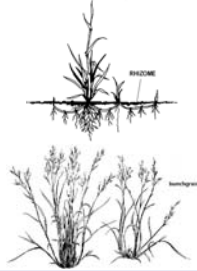






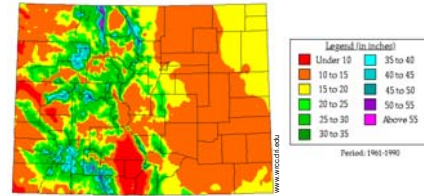
## Sod-forming vs. Bunchgrass

- Sod-formers send out rhizomes that root in the soil
- Bunchgrasses grow in clumps
- Bunchgrasses make up the majority of the species
- Sod-formers fill in around the bunchgrasses



## Drought Tolerance

- Minimum Precipitation
- Found in PM Tech. Note 59



## Price

- Non-natives are cheap
- Some Colorado counties require native species

## Ease of Establishment

- Natives are slow to establish
- Some non-native species are rapid

## Problems with Non-Native Species

- Smooth Brome
- Canada Bluegrass



## Companion Crops

- Can slow establishment
  - 1 year
- Annual species
  - Wheat
  - Winter Rye
- Not advised without irrigation

## Soils

- Stockpile topsoil
  - Separate from overburden
    - **Overburden**- Lack of organic matter and nutrients, biological components

## Slope Aspect and Shade

- North
  - Indirect Sun
  - No warm season species
- South
  - Hot
- East
  - Morning sun
- West
  - Afternoon sun
- Flat
  - Forest

## Seedbed Preparation

- Relatively smooth
- Free of rills
- Free of competitive vegetation
- Firm
- Route runoff away from site



## Seeding Method

- Grass Drill
  - Requirements
    - Double disk openers with depth bands
    - Packer wheels, not drag chains
    - Agitator for fluffy seed
- Broadcast
  - Double the drill rate
  - Seed needs to be either raked or harrowed into the soil
- Hydraulic
  - Problems when applying mix of mulch and seed
  - Many contractors double the broadcast rate

## Seeding Method Cont.



## Soil Amendments

- Soil Test
  - Recommended for:
    - Lodgepole Pine Forest
    - High Salinity
- Fertilizer
  - Encourages weeds that compete with grass
- Compost
  - "Cooked" for at least 1 week to a min. of 140° killing weed seeds and pathogens
- Mycorrhiza
  - Microscopic Fungi
    - Attach to roots, aid in nutrient uptake

## Cover Crop/Mulching

- Cover Crop
  - Large Areas, mulch is grown
- Straw
  - Certified weed free
  - Application rate, 2 tons/acre
  - 50% should be 10" or longer
  - Crimped along slope contours
- Hay
  - Native Hay
    - Hard to find
    - Expensive
- Blankets
  - Aspen
  - Straw
  - Coconut fiber
  - Blends
- Hydro Mulch
  - Wood fiber
    - Most common
  - Bonded fiber matrix
    - Most Expensive
- Tackifiers
  - Selection depends on time of seeding
    - Plantago
    - Guar gum
    - Polymers
    - Starch

## Blanket Examples



## Weed Management

- IF there are noxious weeds on site
- Controlled before moving any dirt
- Pre-emergent herbicides
- Mowing



## Time

- Won't happen over night
- What to expect



## Overwhelmed?

- Call you local NRCS office
- Get a list of seed mixes they have developed

## Questions?

