



### <u>Outline</u>

Production and nutritive value improvement with pasture legumes Steve Cox, MS student

Crop Sci. 57:1742-1753.

Strategy for successful inter-seeding legumes into a cool-season pasture

Jacob Briscoe, MS student Crop, Forage & Turfgrass Management



# What determines productivity of grazing-lands?

### Environment

Moisture, soil type, climate

### Management

- Animal management
- The right plant materials
- The right plant materials in the right combinations

# The right combination of legumes with grasses increases productivity

- Legumes fix atmospheric N
- Some of this is available to other plants



_egume	N fixed
	(lbs/acre/year)
Alfalfa	70-200
Birdsfoot trefoil	11-150
Cicer milkvetch	140
Kura clover	17-158
Red clover	60-200
Soybean	20-200
Sweetclover	120
White clover	115-180















































## Inter-seeding study

- · Six plantings three locations
- Lewiston
  - Summer July 26, 2013
  - Spring May 22, 2014
- Millville
  - Fall Aug 22, 2014
  - Summer June 27, 2016
- Panguitch
  - Late Spring June 6, 2016

### Inter-seeding study

- Treatments
  - Close mowing (grazing)
  - Glyphosate at 6 oz/acre
  - Light tillage
  - Untreated
- Legumes
  - Alfalfa
  - Birdsfoot trefoil
  - Cicer Milkvetch















# Results

- So what happed at the following
- Lewiston
  - Spring May 22, 2014, Failure
- Millville
  - Fall Aug 22, 2014, Failure

It appears that legumes inter-seeded into grass in the spring and fall are not successful





