**Solutions To Grazing Scenarios**

**Solution for Scenario #1**

For Full Use: Increase stocking rate:

**Home pasture is not included in calculation**

Supply using pounds/acre information

Upland pasture:
- 180 ac upland site × 825 lb/ac × 45% = 66,825 lbs
- 40 ac lowland site × 950 lb/ac × 55% = 20,900 lbs

North River Pasture:
- 160 ac lowland site × 950 lb/ac × 55% = 83,600 lbs

South River Pasture:
- 160 ac lowland site × 950 lb/ac × 55% = 83,600 lbs

Total Forage Available = 254,925 lbs

--- OR ---

Supply using AUM information

Upland pasture:
- 180 ac upland site ÷ 2.0 ac/AUM = 90 AUM
- 40 ac lowland site ÷ 1.5 ac/AUM = 27 AUM

North River Pasture:
- 160 ac lowland site ÷ 1.5 = 107 AUM

South River Pasture:
- 160 ac lowland site ÷ 1.5 = 107 AUM

Total Forage Available = 331 AUM

Demand = 75 cows × 1.2 AUE = 90 AU × 3 month
= 270 AUM + 30 elk × 0.6 AUE = 18 AU × 1 month = 18 AUM

Total Current Demand = 288 AUM.

--- OR ---

Demand = 1,200 lb cow × 2.5% body weight per day eaten = 30 pounds per day × 75 cows × 90 days = 202,500 lbs
+ 600 lb elk × 2.5% body weight per day eaten = 15 pounds per day × 30 elk × 30 days = 13,500

Total Current Demand = 216,000 lbs

**Scenario #3**

For Full Use: Decrease stocking rate

Supply using Acres/AUM information

Home Pasture:
- Native Grass Site = 442 ac ÷ 6.5 ac/AUM = 68 AUM
- Crested Wheatgrass Site = 540 ac ÷ 3 ac/AUM = 180 AUM

North East Pasture:
- 270 ac ÷ 6 ac/AUM = 45 AUM

West Pasture:
- 549 ac ÷ 4.5 ac/AUM = 122 AUM

Total Forage Supply = 415 AUM

Demand = 76 cows × 1.1 AUE = 82.5 Animal Units (AU)

Home Pasture in spring = 82.5 AU × 2 months = 165 AUMs

North East Pasture = 82.5 AU × ½ months = 41.25 AUMs

West Pasture = 82.5 AU × 2 months = 165 AUMs

Home Pasture in Fall = 82.5 AU × 1 month = 82.5 AUMs

Total Current Demand in AUMs = 454 AUM.

Total Current Demand in Pounds = 315,000

**Solution for Scenario #2**

For Full Use: Increase stocking rate:

Supply using pounds/acre information

Spring Pasture:
- Loamy Site = 380 ac × 850 lb/ac × 45% = 145,350 lbs
- Shallow Site = 70 ac × 500 lb/ac × 40% = 14,000 lbs

Hill Pasture:
- Loamy Site = 195 ac × 850 lb/ac × 45% = 74,588 lbs
- Shallow Site = 85 ac × 500 lb/ac × 40% = 17,000 lbs

North River Pasture:
- 160 ac lowland site ÷ 1.5 ac/AUM = 107 AUM

South River Pasture:
- Hill Pasture:
  - Loamy Site = 195 ac × 850 lb/ac × 45% = 74,588 lbs
  - Shallow Site = 85 ac × 500 lb/ac × 40% = 17,000 lbs

Creek Pasture:
- Loamy Site = 240 ac × 850 lb/ac × 45% = 91,800 lbs

Total Forage Available = 342,738 lbs

--- OR ---

Total Forage Available = 342,738 lbs ÷ 750 lbs/AUM = 456 AUMs

South River Pasture:
- 160 ac lowland site ÷ 1.5 = 107 AUM

Total Current Demand = 288 AUM.

Demand = 35 cows × 6 months = 210 AUMs

Hill Pasture = 35 cows × 3 months = 105 AUMs

Creek Pasture = 35 cows × 3 months = 105 AUMs

Total Current Demand in AUMs = 420 AUM.

Demand = 1,200 lb cow × 2.5% body weight per day eaten = 30 pounds per day × 75 cows × 90 days = 202,500 lbs

+ 600 lb elk × 2.5% body weight per day eaten = 15 pounds per day × 30 elk × 30 days = 13,500 lbs

Total Current Demand = 216,000 lbs

--- OR ---

Spring Pasture = 1,000 lb cow × 2.5% body weight per day eaten = 25 pounds per day × 35 cows × 180 days = 157,500 lbs

Hill Pasture = 1,000 lb cow × 2.5% body weight per day eaten = 25 pounds per day × 35 cows × 90 days = 78,750 lbs

Creek Pasture = 1,000 lb cow × 2.5% body weight per day eaten = 25 pounds per day × 35 cows × 90 days = 78,750 lbs

Total Current Demand = 315,000 lbs

--- OR ---

Spring Pasture = 1,000 lb cow × 2.5% body weight per day eaten = 25 pounds per day × 35 cows × 180 days = 157,500 lbs

Hill Pasture = 1,000 lb cow × 2.5% body weight per day eaten = 25 pounds per day × 35 cows × 90 days = 78,750 lbs

Creek Pasture = 1,000 lb cow × 2.5% body weight per day eaten = 25 pounds per day × 35 cows × 90 days = 78,750 lbs

Total Current Demand = 315,000 lbs