

Conservation Security Program Pastureland and Rangeland **Management Records**

**This pages are designed to assist in preparing the documentation
necessary to participate in the CSP program.**



Livestock Inventory

Forage Inventory

Grazing System Plan

Grazing Records

Pasture Nutrient Input

Pasture Pest Management

Range Pest Management

Pasture Irrigation Mgmt



Farm Location Map

Washington Natural Resources Conservation Service



On this page, draw or attach a detailed map of your farm or ranch operation (field boundaries, access roads, streams, etc.). Include the location of conservation practices (fences, terraces, pipelines, etc.) you have installed on each field. Attach additional pages if necessary.



Property Location Map

Farm Map Legend

 Property Boundary

 Road

 Fence

 Homestead

 Stream

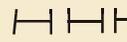
 Field Number

 Well

 Spring

 Water

 Ditch

 Pipeline

 Trough

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Livestock Inventory

The next two worksheets will break down your herd inventory needs (demands) and corresponding forage and roughage inventory available (supply). This will help you and your conservation planner determine if your grazing system is balanced for the most sustainable use of your grazing land.

This worksheet will provide an overall description of your livestock operation, including the number of animals you have and their corresponding animal unit equivalents (aue). One animal unit is equivalent to the intake required for one 1,000 pound mature cow and her calf (see chart below). This worksheet will also help to identify the appropriate number of Animal Units per Month (AUM) needed for your livestock. An AUM is the amount of forage needed to sustain one animal unit, or its equivalent, for one month. This equates to 26 pounds of dry feed for one day and 790 pounds of dry feed for one month. Your total AUMs/year (indicated with an asterisk *) will determine the number of AUMs of forage or roughage needed for your operation. Use the chart below to help you determine the appropriate animal unit for your livestock type for column 3 of the worksheet titled *Animal Unit Equivalent*. Please refer to the example for your reference and then fill out your information on the following page.

Determining Animal Unit Equivalent	
Type of Livestock	Animal Unit (au)
1,000 lb Cow w/calf	1.0 au
1200 lb Cow w/calf	1.15 au
850 lb Replacement Heifers	.9 au
1,500 lb Bull	1.35 au
1,500 lb Horse	1.25 au
200 lb Ewe/Doe	.16 au

1. EXAMPLE: Livestock Inventory, Total AUMs Needed Worksheet

1	2	3	4	5	6
Livestock Type	Number of Animals	Animal Unit Equivalent (aue)	Total AUs (multiply columns 2 & 3)	Months on Unit	Total AUMs Needed per year (Multiply column 4 by column 5)
Pairs (1,200 lb)	350	X 1.15 au	= 403 AUs	X 12	= 4,836 AUMs/year
Replacement Heifers	30	0.9 au	27 AUs	12	324 AUMs/year
Bulls	20	1.35 au	27 AUs	12	324 AUMs/year
Total	400		457 AUs		* 5,484 AUMs/year

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



1. Livestock Inventory, Total AUMs Needed Worksheet

1	2	3	4	5	6
<i>Livestock Type</i>	<i>Number of Animals</i>	<i>Animal Unit Equivalent (aue)</i>	<i>Total AUs (multiply columns 2 & 3)</i>	<i>Months on Unit</i>	<i>Total AUMs Needed per year (Multiply columns 4 and 5)</i>
	Animals	X Animal Unit	= AU's	X Months	= AUMs/year
Totals					

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Forage Inventory

The following worksheet will determine the total amount of forage on your operation. Utilizing this and the livestock inventory will allow you to create a balanced grazing program.

If you are unable to determine the amount of AUMs your pasture or range produces in a year, please contact your local NRCS conservation planner. This information is critical in order to complete the rest of the Rangeland Worksheets.

In order to calculate total AUMs on your field (column 4) one of the following two calculations will be needed.

- 1) If your yield/acre per year (column 3) is calculated number of Acres per AUM then:
Total Acres (column 2) divided by #Acres per AUM (column 3) equals Total AUMs per year (column 4).
- 2) If your yield/acre per year (column 3) has been calculated as number of AUMs per Acre then:
Total Acres (column 2) multiplied by #AUMs (column 3) equals Total AUMs per year (column 4).

*Note: If your yield is in tons multiply the total number of tons by 2.54 to get the number of AUMs.

Please refer to the example for your reference and then fill out your information on the following page.

2. EXAMPLE: Forage Inventory, Number of AUMs Available Worksheet

1	2	3	4	5
<i>Field Number/ Name</i>	<i>Acres</i>	<i>Yield/Acre per Year</i>	<i>Total AUMs Available</i>	<i>Type of Forage or Feed</i>
Field 11,15, & 16	18.4 ac	X 3.74 AUM/ac	= 68.8 AUMs	Alfalfa aftermath
Tract 523	5000 ac	/ 4 ac/AUM	= 1250 AUMs	Rangeland
Tract 2395	103	4.5 ac/AUM	464 AUMs	Irrigated Pasture
Miller Place	2000	0.33 ac/AUM	660 AUMs	Rangeland
Home Place	55	1.36 AUM/ac	75 AUMs	Irrigated Pasture
Totals	7,176.4		2,619.8 AUMs	

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



2. Forage Inventory, Number of AUMs Available Worksheet

<i>Field Number/ Name</i>	<i>Acres</i>	<i>Yield/Acre per Year</i>	<i>Total AUMs Available</i>	<i>Type of Forage or Feed</i>
	Acres	X AUM/Acre	= Total AUMs	
	Acres	/ Acre/AUM	= Total AUMs	
Totals		X		X

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Grazing Records for Range

This worksheet will combine the information you have determined and developed in the last three worksheets. The following charts are provided for your use in keeping track of your grazing records on rangeland and will help you determine the current balance of forage and animals on each field.

Use the following descriptions to determine your *Use Class* for the last column of the chart. At or near the end of the grazing period determine the degree of use from the chart below. When properly grazed, the vegetation left will supply adequate cover for soil protection and will maintain or improve the quantity and quality of desirable vegetation (identified as "Full" use below).

Degree of Use	Description
None : 0-15 percent	Very little or no use of key forage plants. Only choice areas and choice forage grazed.
Light: 16-35 percent	Key forage plants lightly to moderately used. Practically no use of low-value forage plants. Most of accessible range shows grazing. Very little trailing to grazing.
Moderate: 36-65 percent	Key forage plants used correctly for the season of grazing. Some use of low-value forage plants. All fully accessible areas are grazed; some trampling damage may be evident.
Heavy: 66-80 percent	Key forage plants closely cropped. Low value forage plants generally being grazed. Trampling damage is widespread in accessible areas.
Severe: 81-100 percent	Key forage plants are weakened from continual grazing of regrowth and mechanical damage. Low-value forage plants carrying the grazing load and are closely cropped.

4. EXAMPLE: Grazing Record - Range

Grazing Record - Range							
Field Name	Miller Place						
Year or Season	2003 - Summer				Total Acres	2000	
Livestock Type	Livestock Number	Date In	Date Out	Days Grazed	Animal Units	AUMs (Days x AUs / 30.4)	Use Class Percent
Pairs	350	5/1	6/15	46	403	610	Moderate
Totals	350			46		610	

AUMs Available (From Forage Inventory Worksheet 2): 660

AUM Balance (AUMs Available - Total AUMs Column): + 50

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



4. Grazing Record - Range

<i>Grazing Record - Range</i>							
<i>Field Name</i>							
<i>Year or Season</i>					<i>Total Acres</i>		
<i>Livestock Type</i>	<i>Livestock Number</i>	<i>Date In</i>	<i>Date Out</i>	<i>Days Grazed</i>	<i>Animal Units</i>	<i>AUMs (Days x AUs / 30.4)</i>	<i>Use Class Percent</i>
Totals		X	X		X		X

AUMs Available (From Forage Inventory Worksheet 2): _____

AUM Balance (AUMs Available - Total AUMs Column): _____

<i>Grazing Record - Range</i>							
<i>Field Name</i>							
<i>Year or Season</i>					<i>Total Acres</i>		
<i>Livestock Type</i>	<i>Livestock Number</i>	<i>Date In</i>	<i>Date Out</i>	<i>Days Grazed</i>	<i>Animal Units</i>	<i>AUMs (Days x AUs / 30.4)</i>	<i>Use Class Percent</i>
Totals		X	X		X		X

AUMs Available (From Forage Inventory Worksheet 2): _____

AUM Balance (AUMs Available - Total AUMs Column): _____

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Grazing Records for Pastureland

The following charts are provided for your use in keeping track of your grazing records on pastureland.

5. EXAMPLE: Grazing Record - Pasture

<i>Grazing Record - Pasture</i>							
Pasture Name	Tract 2395						
Year or Season	2003				Total Acres	103	
Soil Test (year)	1999				Forage type	Orchardgrass	
Fertilizer-date applied	March 10, 2003: Broadcast				Fertilizer type	46-0-0 100 pounds/ac	
Livestock Type	Livestock Number	Last Irrigation	Date In	Forage Height	Date Out	Forage Height	Notes
Pairs	350	3-15	4-1	10 inches	5-1	4 inches	About 400 AUMs harvested.

Additional Comments/Observations:

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Pasture Nutrients Input

This worksheet contains information on the nutrient applications on your pastures. In the *Soil Test* column please indicate if your fertilizer application rate is based on soil test results.

Please refer to the example below for your reference and then fill out your information on the following page.

6. EXAMPLE: Pasture Nutrient Input

Forage Grown	Field Number	Nutrient Source	Application Rate lbs/ac	Application Method and Date	Application Depth	Soil Test
Irrigated Orchardgrass	3 & 4	20-0-0	400 lbs/ac	Surface Broadcast 3 times	---	No
Int. Wheatgrass and Alfalfa	6	20-10-10	150 lbs/ac	Surface Broadcast 1 time	----	Yes

If irrigated, has water been tested for nitrates? Yes _____ No _____

If you have the results from this test, please attach them to this page for your planners reference.

Additional Comments/Observations:

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Pasture and Range Pest Management Input

This worksheet includes information on the methods used to control pests and weeds on your operation. The following bullets include additional information to assist in completing this worksheet.

- Under the *Suppression Method* column please include the product name or the active ingredient of the method used to manage the target pest listed.
- Under the *Pesticide Application Rate* column include the pounds or ounces of the active ingredient (ai).
- In the *Broadcast or Banded* column, indicate if the pesticide was broadcast applied (more than 50% of field) or banded (less than 50% of field) if these options do not apply simply indicate not applicable.
- Under the *Application Method* column indicate if the pesticide was surface applied (applied to soil surface), soil incorporated (mixed into the soil with light tillage or irrigation), foliar applied (sprayed on a nearly full crop/weed canopy and/or on a more than 50 percent residue cover), if none of these practices apply simply indicate not applicable.

Please refer to the example below for reference and then fill out your information on the following page.

7. EXAMPLE: Pasture and Range Pest Management Inputs

Forage Grown	Field Number	Target Pest	Suppression Method	Pesticide Application Rate	Date Applied	Broad-cast or Banded	Application Method
Irrigated Orchard-Grass	3 & 4	Canada Thistle	Clipping/ Mowing	None	----	----	----
Inter-mediate Wheatgrass and Alfalfa	1	Sagebrush	Tebuthiuron	1.0 ai/ acre	November	Broadcast	Surface

Pasture and Range Land Inventory

Washington Natural Resources Conservation Service



Pasture Irrigation Management

This worksheet includes information on your irrigation method and description. Please refer to the information below to help complete this worksheet.

The following information will help to complete the *Irrigation System Description* column.

Sprinkler System Description:

- Mainline Size
- Lateral Spacing
- Sprinkler Head Spacing
- Nozzle Size
- Revolution/Set Time
- Speed of Gun
- Operating Pressure of Line
- Pressure Regulator Rating
- Flow to Irrigation System (GPM)

Surface System Description:

- Length of Fields
- Furrow/Border Spacing
- Grade at the end of the field: flat, moderate, steep
- Furrow Method: siphon tubes, gated pipe, dirt ditch, concrete ditch

Please refer to the example below for your reference and then fill out your information on the following page.

8. EXAMPLE: Pasture Irrigation Management Worksheet

Forage Grown	Tract Number	Field Numbers	Do you measure or monitor your water? If yes, explain	Irrigation System Description	Irrigation Dates
Alfalfa	696	5 & 6	Tensiometer	100 acre Center Pivot	5/15 - 7/15
Meadow Foxtail	100	7	Hand feel method for moisture testing	5,000 ft of dirt ditch, earth cutouts to graded	5/1 - 7/15

