

TECHNICAL NOTES

U.S. DEPARTMENT OF AGRICULTURE

BERKELEY, CALIFORNIA

SOIL CONSERVATION SERVICE

TN - Range - 11

October 21, 1958

A FORM FOR EVALUATING FEED PRODUCTION and FEED REQUIREMENTS

The primary objective of every livestock operator is to provide adequate feed for all of his livestock for the entire time that he has them on his ranch. This is true whether he has a year-around Cow-calf operation or is in the Stocker-feeder business and maintains a herd for only a portion of the year. As technicians assisting ranchers develop conservation ranch plans, we must keep this in mind and help them develop a plan that will maintain this balance of feed and livestock. The Feed Production and Feed Requirement Summary Sheets (Form CF-111) make it possible to compare the requirements against production, month by month. This often makes it possible to point out to the rancher some change in his forage management program which could help to correct a feed shortage during the critical period, if one exists. It also allows you to analyze the entire operation.

To use these forms, it is necessary to know:

1. Production figures of the various forage crops.
 - a. In the case of annual range, where production fluctuates to such extremes, depending on weather conditions, it is advisable to use the smallest yield expected, as outlined on the Range Site description. In this manner, the technician will not be encouraging over-utilization in any but exceptionally low-producing years.
 - b. Fertilized annual range does not vary in production as much as unfertilized annual range.
 - c. Properly grazed ranges having adequate residues will produce more consistently than will over-grazed ranges.
 - d. Irrigated pasture production varies with species, management, season of the year, and fertilization program. These figures would need to be furnished directly by the rancher involved.

- e. Hay yields will vary with age of stand, and management and fertilization program. Use ranchers' best estimates.

2. Numbers and types of animals to be maintained. - Furnished by rancher.

To illustrate the use of the form, we have worked out a sample situation. In the examples used, the rancher had 640 acres of land, 40 acres of which was in irrigated pasture. He wanted to run cows and calves and keep replacement heifers. Each year, he would sell as many cows as necessary to maintain the breeding herd. He plans to sell all calves at weaning time; so feed for the calves is taken care of when figuring mature cows using 800# of dry feed per month. The question is, How many cows can he maintain?

The major limiting factor is the amount of irrigated pasture available. It will maintain only about 80 head of mature animals during the hot summer months, but with some supplemental feeding he can increase this by 20 head, using the dry range feed available. This is illustrated when each "Kind of Feed" is totaled on the right side of the Feed Production Summary Sheet. With a little manipulation, it is easy to adjust the numbers of animal units by months, so that all stock are being adequately fed all the time.

If shortages do show up, as they did in the case of the example, it is possible to see if there are excesses, by month, and also by comparing the totals of the "Kinds of Feed" needed and produced. This can be done by entering A. U. M. grazing requirement totals by months and "Kinds of Feed" on the Feed Production Summary Sheet for each reference. The rancher can make a decision as to how he can best take care of any critical shortages or excesses.

Submitted by:

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FEEED PRODUCTION SUMMARY SHEET (Field No. & Acres)

~~FEEED REQUIREMENT SUMMARY SHEET (Kind of Stock)~~

Field No. and Ac.	Kind of Feed	(By Months)												Kind of Feed (Totals)				
		Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Hay Tons	Dist. Pasture AUM's	Dist. Handls AUM's	Feed AUM's	
No. 1 40 ac.	Hay (Tons) Dist. Past. (AUM's)							60	80	80	80	80	80	60			360	
No. 2 80 ac.	Dist. Handing (AUM's)		67		33			100	120								320	
No. 3 40 ac.	Dist. Annuals (AUM's)				35	120	45										200	
No. 4 480 ac.	Ann. Range (AUM's)	60					100	20		40	40	40	80				440	
Total		60	67	68	120	120	145	180	200	120	120	120	120	60	360	320	200	440
Feed Requirements		55	109	114	114	114	114	114	114	99	99	99	99	52	320	247	195	418
Excesses (AUM's)		5				6	31	66	86	21	21	21	26	8	40	73	5	12
Shortages (AUM's)			-42	-46														

Dist. Pasture
Dist. Handls
Dist. Annuals
Ann. Range

~~FEEB PRODUCTION SUMMARY SHEET (Statistics & Account)~~
FEEB REQUIREMENT SUMMARY SHEET (Kind of Stock)
 or
 (By Months)

Sheet 1 of 2

Field No. Kind of Stock (AU)	Kind of Feed	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Kind of Feed (Totals)			Prot. Supp.		
		20	20							40	80	80	80	40	Hay (tons)	Str. Pasture		Prot. Supp.	
100	Brood Cows								40	80	80	80	40		320				
	100AUMS				100	50			60							210			
	Annual Range	50	50			100	100	100		5	5	5	45			150	360		
	Protine Supp. (T)	2	2							.12	.12	.12	1				5.4		
	* Sub-total	50	50	100	100	100	100	100	100	85	85	85	85	40	320	210	150	360	5.4
15	Heifers														4				
	Annual Range																		
	Protine Supp. (T)																		
	* Sub-total																		
	9AUMS																		
	Annual Range	5	5				9	9											
	Protine Supp. (T)	.25	.25																
	* Sub-total	5	5	9	9	9	9	9	9	9	9	9	9	4	32	40	28	28	1.5

~~FEED PRODUCTION SUMMARY SHEET~~ (Field No. ~~1-1-1~~)
FEED REQUIREMENT SUMMARY SHEET (Kind of Stock)

Sheet 2 of 2

Frost No. and Ac.	Kind of Stock (A.U.)	Kind of Feed	(By Months)												Kind of Feed (Totals)			
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Hay (tons)	Str. Past. (tons)	Hay Prots. Range Supp.	
4		Hay (tons)	2	2												2	8	
	Bulls	Str. Pasture				5												
	(5 AUM's)	Harding															5	
		Heart Annual			5													5
		Annual Range						5	5	5	5	5	5	5	5			30
		Protein Supp. (1.2)	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12	.12		.12
		* Sub Total	55	55	109	114	114	114	114	114	114	99	99	99	94	8	5	30
		Grand Total	55	55	109	114	114	114	114	114	114	99	99	99	94	52	320	195
																		418
																		8.1
			Two months when feed production does not equal feed needs. These are two ways this can be corrected depending on the rancher's decisions and the soils that are available to work with.															
			1) Make Hay or Fertilized Hardinggrass during May and June, or															
			2. Establish more Hardinggrass - which would cause greater excess in May.															
			* Sub-totals + totals by months are only of AUM's of Grazing they do not include Hay or Supp.															

