

Developing Livestock Leases for Annual Rangelands

(From UC Cooperative Extension)

Revision of “Developing Livestock Leases for Annual Grasslands” ANR Publication 21424

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Draft – w/ additions from Alameda County RCD

Introduction

Many private and public landowners in California have annual rangeland that can be leased for livestock grazing, and provide revenue and rancher stewardship to effectively meet resource management objectives. This publication serves as a general outline for developing livestock grazing leases; however, each lease will have to be tailored to the individual case. The recommendations in this publication should help the landowner (Lessor) and the grazing tenant (Lessee) develop leases that satisfy a variety of situations and objectives. Both parties should have a clear understanding of the lease parameters before reaching a final agreement, and, to protect both parties, verbal agreements must be avoided. In all cases, the lease should be a written document which helps to prevent misunderstandings and unnecessary legal fees at a later date. Seek proper legal advice when developing an initial agreement, because leases are contractually binding agreements.

Resource management goals

An important first step of any grazing management program and lease agreement is to define production, resource or other goals for the property, such as:

- Desired level of income,
- Resource production or conservation (forage, soil cover, and habitat),
- Noxious weeds control,
- Fire hazard reduction,
- Accommodating visitors (trail uses, aesthetics of open space).

Defining the goals for the grazing management program up front in the lease will not only help in developing the agreement but is also essential to gain cooperation from the lessee and to evaluate compliance and effectiveness. Specific management objectives or terms of the monitoring program (such as performance standards) should be included in the lease if there is not an accompanying Grazing Management Plan.

Determining how many and what type of livestock to graze

Inventory. Inventory the forage, water, and physical facilities present on the land. Facilities evaluated should include fences and gates, roads, corrals, working facilities and barns. Additionally, at the time of the inventory,

it will be beneficial to note deficiencies that need to be corrected and opportunities for improvements that would increase production. To do this analysis, the lessor needs to understand the productive capacity of the rangeland and the opportunity for range improvement practices.

Estimating number of livestock. The productivity of forage and the availability and distribution of water will determine the number of livestock that can be run (stocking rate) on the property, and should be included in the accompanying Grazing Management Plan. There are several methods for determining the number of livestock that can effectively graze an area. One method uses historical data on livestock numbers and time of use. This assumes that past numbers of livestock run on the land (or on a similar piece of land) provided acceptable levels of use and are, therefore good estimates of the grazing capacity. The type of livestock to graze is determined by many things – the land owners and resource goals, facilities, size of property, soil type, forage composition, etc.

Ranchers who have grazed properties for many years have learned the number of cattle or sheep that can graze an area. Obtaining information from ranchers or other knowledgeable people is one of the best starting points for estimating livestock grazing and production capacity of certain rangelands.

In the absence of historical data or knowledge, average forage production can be found in soil surveys, soil-vegetation surveys, and USDA Natural Resource Conservation Service (NRCS) ecological site descriptions, or determined by field clippings of vegetation. The NRCS WebSoilSurvey (<http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>) has a tool that computes forage production under different weather years for a defined property. Annual and seasonal fluctuations in quantity and quality forage produced per acre (due to weather) make it difficult to predict numbers of livestock suitable for a management unit. Yearly variation in forage production may vary from twofold to fourfold, but the estimate of grazing capacity is usually stated as an average over years.

Your local NRCS office can help you determine grazing capacity of your land at no charge! Contact information:

EAST BAY	ALAMEDA COUNTY NRCS Alyson Aquino District Conservationist alyson.aquino@ca.usda.gov 925-371-0154, X 3867	CONTRA COSTA CO. NRCS Hilary Phillips District Conservationist hilary.phillips@ca.usda.gov 925-672-4577, X4144	
PENINSULA	SAN MATEO COUNTY NRCS Jim Howard District Conservationist james.howard@ca.usda.gov 650-712-7765		
SOUTH BAY	SANTA CRUZ COUNTY NRCS Roger Tompkins Acting District Conservationist roger.tompkins@ca.usda.gov 831-475-1967	SANTA CLARA COUNTY NRCS Erika Boyland, District Conservationist erika.boyland@ca.usda.gov 831-637-4360	
NORTH BAY	SOLANO COUNTY NRCS Wendy Rash District Conservationist Wendy.Rash@ca.usda.gov 707-448-0106 x 111	NAPA COUNTY NRCS Emma Chow District Conservationist Emma.Chow@ca.usda.gov 707-252-4189 x 101	SONOMA / MARIN CO. NRCS Jennifer Walser District Conservationist jennifer.walser@ca.usda.gov 707-794-1242

After establishing an initial stocking rate, good grazing management requires monitoring of forage use throughout the grazing season. Monitoring (see Monitoring section) the forage will inform decisions to reduce stocking rates or provide supplemental feed when forage is short, or to increase stocking rates when surplus feed is available. At the conclusion of the grazing season, if the grazing use is too much or too little, adjustments should be made the next season.

Rangeland Lease/Rental Rates

Lease or rental rates on agricultural property are typically based on the property's value for agricultural production. This value is determined by economic forces of supply and demand for agricultural land, and not on other factors influencing land values such as potential development. However, rangeland leases are unique in that the grazing lessee may pay rent based the land's agricultural value, but the Lessee is also often a vendor who provides a conservation service, and a partner who collaborates in planning, stewardship and in some cases, public relations. In the final analysis, the agricultural rate may be discounted based on the non-economic "value-added" of the lessee's participation as a cooperating conservation service provider, vendor, and/or partner.

The production value of rangeland is influenced by the relative profitability of the livestock industry, the supply and cost of alternative sources of feed, the feed producing capacity of the parcel in question, access to the site's forage including the availability of livestock water, the demand for forage, and other conditions of the lease agreement.

Following are three reasonable and commonly used methods to establish rental rates: (1) the market value based on what others are charging for land of similar quality; (2) variable income approach; and (3) flat rate (including the per acre method described in the next section).

Market approach. The market value approach is based on determining the local rental values for similar rangelands. An estimated average value or a range of values are available in "Annual Crop Reports" published by each county's Department of Agriculture, and values by county and region are also reported by the American Society of Farm Managers and Rural Appraisers. Such information will need to be analyzed to be applicable for individual situations as specific or single rental values fit a specific set of conditions.

Market rates may also be set through a competitive bid. One effective competitive bid approach which also provides for a lessor's desire for good rangeland stewardship is to have a double bid, in which applicants bid the amount of rent they will pay, and separately submit a proposal with their qualifications and any services they will provide beyond the minimum requirements. Caution – the lessor should not necessarily take the highest bid, since that lessee will have greater pressure to remove as much forage from the land to compensate for the higher fees, or to assure the lease agreements are kept.

Variable Income approach. Some lessors use an annual variable rate based on a livestock price index. Variable rates attempt to realistically reflect potential livestock income. Livestock prices from nearby sales, video auctions or market reports may provide a basis for the price index. The index may be developed from a long-term average for from fixed months. For example, the average price for 700 lb. steer calves in May, June, and

July may provide a price for the index. An index commonly used in California provides for \$0.05 increase in Animal Unit Month (AUM) rate for every \$0.50 increase in average calf price.

Setting the Final Rental Rate. After establishing a forage or base rental value, additional items need to be considered before the final rental rate and method of payment can be settled. If a property owner requires the lessee to provide vendor or partner services such as extensive monitoring, frequent movement of livestock on and off or between fields, habitat management or other management time, this can be accounted for with lower rent (or rent credits), a common practice on local conservation lands. The same would be true for small-acreage leases lacking economy of scale, and any leases with difficult access. The lease rate should take into consideration the lessee's role as a partner, access issues, the type and weights of livestock, numbers of livestock (stocking rate) and grazing season. The lessor may set the final rental rate either after negotiation with a Lessee or after determining the amount of income needed from the property.

Method of Charging for the Lease

Local tradition often influences whether a lease rate is charged per AUM, per acre, per ranch, or paid on gain. The method chosen should best fit the needs of the parties involved.

A common one, currently used by public landowners, is to charge by **AUM**, defined as the amount of forage required by a mature cow (and calf) for one month and has a set of equivalents for other types of livestock. For example, a field rated at 100 AUMs could support 10 cows for 10 months, 50 cows for 2 months or 125 sheep for 4 months. The AUM is frequently used when describing stocking rates in soil surveys and other rangeland analysis. For ease of calculation, an AUM is often considered a mature cow and nursing calf and Animal Unit Equivalents are as follows:

	AUM Equivalent
Mature cow (and nursing calf)	1.0
Bull	1.25
Bred heifer	0.75
Yearling steer or heifer	0.5 – 0.75
Horse	1.2
Sheep	0.2

Per AUM. The rate per AUM may be based on the market value or may be a variable rate based on the local livestock market (see above). The advantage of an AUM rate is that Lessees pay for what they use; if drought shortens the grazing season or requires the rancher to reduce the number of head, the total payment is reduced accordingly. Disadvantages include that the Lessee has little incentive to improve the productivity of the land or optimize livestock distribution through good range stewardship; and that too little grazing might occur (and thus conservation objectives aren't met) if the Lessee doesn't keep as many livestock at the property as the owners would prefer.

A simplified version of per AUM is *per head* for a month or season. For example \$120/ per cow for the growing season. The rate is set based on the type of livestock being grazed- cows and calves, stocker cattle, replacement

heifers, sheep, horses. Similar to the per AUM method, the Lessee only pays for what they use, so the Lessor assumes some of the risk of annual forage production.

Per Acre. Another method is to set a flat rate *per acre*, which provides an incentive to improve productivity and distribution, but puts all the risks of weather onto the Lessee. A flat rate approach should be combined with performance standards and a long-term lease. If the lease term is short, the Lessee might over utilize the forage resources, or otherwise misuse resources of a property. Negative incentives may be further increased if the lease rate is set through a competitive bid process, which awards the lease to the highest bidder without defined performance standards. While this method apparently led to excessive stocking and over-grazing in the past, it can be implemented with stocking limits, performance standards, and stewardship requirements. It can provide stability, simplicity, and an incentive to the Lessee to offer more stewardship services.

Per whole tract refers to renting a block of land or ranch for one fee. This is normally used when leasing an entire ranch for a period of years or when a mixture of land types is leased together (range, cropland, pasture, forest). This payment method may also be an effective method for leasing small parcels with simple leases.

Paid on the gain applies to seasonally grazed, weight-gaining livestock such as stocker cattle, replacement heifers, and lambs. The livestock should be weighed at a certified scale, before and after grazing occurs. These rental charges may consist of a pre-established , charge per pound of gain (i.e., \$.25) or a share of the total weight gain (40-60%) for the grazing period.

Example: Steers grazing from October to May

Final weight and price (May) 700 lb. @ \$1.90/lb. = \$1,330;

Initial weight and price (October) 450 lb. @ \$2.50/lb. = \$1,125

= \$205; 50% of gain = \$102.5 per head per season is paid to the Lessor

Lease Agreement Conditions

Leases may be as complex or as simple as needed to fit the situation. While many circumstances may need to be addressed in an agreement, the following provides key points to be included.

General terms of the lease. A lease must include the names of the involved parties; description of the location; number of acres involved; class and number of livestock that are acceptable; type of lease-continuing, annual, or seasonal; start and end dates; method of payment; and such legal terms as necessary (reviews, amendments, transfer of property, right of entry, conditions for termination, etc.)

Length of lease. Long-term leases (minimum 5 years) are generally favored by both landowner and Lessee. Long-term leases give the Lessee a sense of ownership in the property and encourage proactive and committed stewardship. Multi-year Lessees are more likely to make investments in rangeland improvements and to perform stewardship and maintenance activities beyond the lease requirements. This provides an incentive to maintain sufficient residual dry matter that protects soil from erosion and enhances the subsequent year's forage production. Short-term leases conversely allow for overuse and may result in poor management.

Long-term leases also make Lessees eligible for USDA Environmental Quality Incentive Program (EQIP) funding for rangeland improvements (Lessees must have a lease secured for the length of the EQIP contract, which is generally three to five or more years), allowing a Lessor to leverage federal funds. Leases should include performance standards allowing the Lessor to terminate the lease if the Lessee fails to meet minimum standards. Leases should also allow the Lessor to extend the lease if the tenant has provided excellent stewardship, to be determined at the discretion of the Lessor. This encourages high levels of stewardship, and allows the Lessor to retain a tenant who has been successful and easy to work with. This can be limited to a one-time extension of five years, rather than unlimited extensions, if the Lessor desires Lessee selections to be made periodically on a competitive basis.

Termination of Lease. The lease should address what will happen if things go wrong. The lease should also state what happens in case of emergency, such as drought, mass animal health problems, or personal illness. Will lease payments still be due in this situation? Make sure you clarify that you have time (at least 30 days) at the end of the lease to remove animals and equipment from the property (Check if there is applicable California State Law).

Reasonable use/ Performance Standards. Maintaining the health and productivity of the rangeland resources are important considerations in grazing leases. Moderate levels of residual dry matter (RDM) provide a reasonable measurement of good grazing management and are measured at the end of the grazing season. A third party can determine the level of RDM left, to evaluate and discuss with both Lessor and Lessee about past grazing management

Performance standards (based on specified management objectives) should allow for a realistic level of variation across the landscape and over years, and may be more completely defined in an associated Grazing Management Plan. If a Lessee fails to meet a performance standard, there should be discussion and assessment with the Lessor to understand why. Some performance standards are not realistic at a given site, or would require additional infrastructure such as a watering trough or fencing. In other words, the process of adaptive management must be applied to the targets of management as well as the methods. Long-term monitoring should include the evaluation of the goals and objectives themselves. Objectives may be found to be insufficient or overly restrictive in meeting the overall goals. New goals and objectives may emerge due to invasive species, climate change, and other long-term changes.

Livestock Care. Table 1, B. *Grazing Management and Operations* outlines responsibilities for caring for livestock, ranch employees, and security. Considerations should be given to Lessees who have demonstrated good livestock care practices and are headquartered within the geographic area of the leased rangeland. Having a Lessor that can respond quickly to an emergency is vital.

Diseases and Death Losses. The Lessee should provide a certification of no disease and proof of brucellosis vaccination. If there is a death loss, the Lessee will be responsible for disposing of the carcass in the manner specified. The Lessor and Lessee should decide who assumes the costs due to predation.

Supplemental Feeding. Supplemental feeding should be allowed and encouraged in the late summer, fall, and often into the winter. Hay or commercial supplements provide nutrients that are deficient and replace forage when lacking. Care should be taken to move the feeding site each year if at all possible. Such locations should be monitored by the Lessee for introductions of pest plants, and the Lessee should be responsible for actions to

control any infestations. Moving the feeding site reduces localized heavy grazing and trampling. The Lessee pays for the feed.

Weighing Conditions. Proper weighing, working, and loading facilities in good condition should be provided by the Lessor, especially when rent is based on weight gain. The conditions of weighing such as time of weighing and who will be present should be spelled out in the agreement.

Infrastructure. *Table 1, A. Infrastructure for Grazing Management, Grazing Operations, and Related Stewardship* outlines essential structures needed to reach the grazing goals. It is essential to provide for maintenance of facilities in a lease so that these structures do not deteriorate and the range, soil, and water are not degraded. Provisions for maintenance and improvements can be negotiated in a lease so that they benefit both the Landlord and Lessee. Typically, the Lessor is responsible for replacements and repairs, and the Lessee is responsible only for maintenance up to the expected lifespan of each type of facility. The more assured a Lessee is of lease renewal, the more incentive he or she has to manage long-term productivity of the land and upkeep of facilities. Under a long-term (5 years minimum) lease, the Lessee may assume the bulk of responsibility for maintenance and repair on all buildings, interior fences, gates, corrals, and water facilities as well as weed control to the satisfaction of the Lessor. For short-term leases the Lessor may assume major maintenance responsibilities. The cost of improvements such as extensive weed control projects, fencing, and water developments require greater capital investment and could be shared by both parties.

Watering. Good quality water in good quality watering facilities in proper locations improves performance of livestock and use of rangelands. When water supplies dry up or facilities malfunction, provisions must be made to supply water or move livestock. Water availability, and expectations for facility maintenance should be spelled out in the agreement.

Ecosystem Services. *Table 1, C. Conservation Services* (for general land care, support of the land's "ecosystem services," and conservation purposes). A Lessor may have goals for maintenance and enhancement of special habitats (special-status plants or wildlife, riparian woodland, ponds, wetlands, native grasses, or oaks).

Monitoring. *Table 1, D. Monitoring* discusses how a Lessor and Lessee can determine if resource and grazing goals have been met. Grazing use can be measured by the amount of residual dry matter (RDM) that remains at the end of the grazing season or just before germinating fall rains. RDM is critical in creating the optimum microenvironment necessary for good fall germination and growth of annual plants. Included in RDM are standing dead plants and litter from these plants; however, the standard methods for RDM measurement does not include biomass from summer annual forbs, woody plants, or dung even though this additional residue is important in erosion-prevention management.

Amounts of RDM per acre required for proper management vary according to topography, cover of woody vegetation, precipitation, soil, and livestock use. In general, steeper wetter slopes require more RDM than gentle dry areas. See "Guidelines for Residue Management on Coastal and Foothill Rangelands in California, Publication 8092, available from UC Division of Agriculture and Natural Resources"

<http://anrcatalog.ucanr.edu/pdf/8092.pdf>.

Administration and Coordination. *Table 1. E. Administration and Coordination* addresses several activities that should be included in the lease and grazing operations. Among these is the typical need for the Lessee to carry liability insurance.

Rent credit. One method to support maintenance and improvement activities by the Lessee that may be beneficial to both the Lessor and Lessee is the use of rent credits. Reimbursement or rent credit is provided to the Lessee who installs new or replacement infrastructure deemed in advance to be necessary or desirable by the Lessor. Options that should be negotiated include full reimbursement, reimbursement of up to a set percentage of the cost, rent credit up to a set percentage of the year's rent due, and rent credit for several years in a multi-year lease for expensive projects. Reimbursement may be preferable to rent credit if the Lessor seeks to maximize the "income" side of their ledger, while rent credit may be preferable if the Lessor seeks to minimize the "expense" side.

Special clauses. Each lease should contain a means to modify the terms to address emergency situations, such as wildfire, drought, and flood. There should also be a way to change or terminate the lease when both parties agree. Restrictions on activities such as hunting or fishing, non-livestock enterprises, public access and tree cutting and selling should be stated in the lease.

Table 1. Rangeland Management Activities and Responsibilities*

Rangeland Management Activities & Responsibilities:	Primary Benefits:		Responsible Party:		
	Conservation	Livestock Production	Landowner	Livestock Operator	
				Standard Lease Term	Potential Fee Credit Or Comp
A. Infrastructure for Grazing Management, Grazing Operations, and Related Stewardship					
Essential infrastructure: Access roads, culverts and road drainage, related parking and turnaround areas, livestock handling and staging facilities, fencing, gates, cattle-guards, and watering system/facilities: stockponds, spring-boxes, wells, pumps, tanks, troughs and hardware, foundations/armoring of tank/trough sites, wildlife escape ramps					
1. Develop (new or replace) essential infrastructure (see above) of adequate quality for a viable grazing operation following the Rangeland Management Plan (Repeat such development when each element has exceeded its expected lifespan)	X	X	X		X
2. Maintain and clean existing essential infrastructure (see above) of adequate quality.		X		X	
3. Maintain stockponds for both watering and habitat	X	X	X		X
4. Clear blocked culverts and drainage dips on dirt access roads.	X	X		X	
5. Maintain primary and other useful dirt access roads	X	X	X		X
6. Replace or repair infrastructure damaged due to vehicle accidents and vandalism.	X	X	X		X
7. Replace or repair all damage to infrastructure caused by livestock.		X		X	
B. Grazing Management and Operations					
1. Maintain health of livestock, remove individual livestock deemed “problems” or diseased livestock	X	X		X	
2. Supervise Livestock Operator’s employees and subcontractors		X		X	

Rangeland Management Activities & Responsibilities:	Primary Benefits:		Responsible Party:		
	Conservation	Livestock Production	Landowner	Livestock Operator	
				Standard Lease Term	Potential Fee Credit Or Comp
3. Gather and handle livestock		X		X	
4. Move livestock to designated locations or otherwise to achieve the specified grazing objectives, other than for "targeted grazing" (refer to #C.2)	X			X	
5. Patrol to assess and respond to infrastructure and resource conditions and livestock escapes	X	X		X	
8. Be available and conduct rapid response to emergency requests for assistance and maintenance, or general visitor assistance	X		X	X	
9. Patrol for site security, notify Skyline Area Superintendent of trespass activity	X	X	X	X	

C. Conservation Services (for general land care, support of the land's "ecosystem services," and conservation purposes)

1. Remove/clean-up abandoned fence, equipment, trash, and debris	X	X			X
2. Conduct targeted grazing or exclusion for maintenance and enhancement of special habitats (special-status plants or wildlife, riparian woodland, ponds, wetlands, native grasses, or oaks).	X	X			X
3. Control of invasive plant, reduction of fire hazards, and other special resource projects; activities might include herbicide application, construction, manual work, and specialized equipment work	X	X	X		X
4. Conduct other activities not part of a "normal" grazing lease for regular or one-time purposes (construction, manual work, and specialized equipment work)	X	X			X
5. Participate in educational events and visitor relations organized by the Landowner	X	X	X	X	

D. Monitoring

Rangeland Management Activities & Responsibilities:	Primary Benefits:		Responsible Party:		
	Conservation	Livestock Production	Landowner	Livestock Operator	
				Standard Lease Term	Potential Fee Credit Or Comp
1. Work assigned to Livestock Operator (per Grazing Management Plan, Resource Management Plan, and Habitat Management Plan)	X	X		X	
2. Work assigned to Landowner (per Grazing Management Plan, Resource Management Plan, and Habitat Management Plan)	X	X	X		X
3. Make general "naturalist" observations of sightings of unusual wildlife, plants, natural events (weather, wildflower displays, wildfires, new pest plant infestations, insect infestations, landslides, tree-falls, high/low streamflow, etc.) or other things of interest, and provide periodic reports	X		X	X	
E. Administration and Coordination					
1. Manage lease and operations activity		X	X	X	
2. Maintain appropriate insurance for liability and workers compensation		X		X	
3. Manage Livestock Operator personnel		X		X	
4. Coordinate with Landowner representative	X	X	X	X	
5. Propose stewardship activities and negotiate lease rent credit for those activities; prepare and review annual and monthly stewardship work plans and progress reports	X	X	X		X
6. Project management and contract administration	X	X	X	X	
7. Participate in administrative meetings with Landowner to review monitoring results, including compliance with lease and Landowner management plans; review and recommend minor adjustments to management activities as well as adaptations to the formal management plans; plan subsequent year; and complete required reports and other communications	X	X	X	X	
8. Consult to Landowner as requested on grazing management, operations, infrastructure, planning, monitoring, and conservation issues	X	X			X

