



Meet **y**our **p**erfect **g**razing **m**atch!

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### **What is Match.Graze?**

From small semi-rural communities to large open spaces, grazing can provide an affordable solution to the inevitable accumulation of fire fuels. Grazing can be more cost effective for reducing fuels on landscapes that are too steep, rocky, or remote for mowing or chemical treatment, or in the wildland-urban interface where burning is not an option. Every property is different and requires thoughtful consideration of how it should best be grazed. Cattle, sheep, goats, and other grazing animals all have distinct roles to play in grazing for fire fuel reduction. So, do you have land but no livestock and feel concerned about fire fuels on your property? Or are you a livestock owner that can provide a grazing service and/or need land and forage for your animals?

UC Cooperative Extension (UCCE) Sonoma recently launched “Match.Graze,” an online database that connects landowners who do not have grazing animals to livestock owners with animals that can provide vegetation management services. With Match.Graze, UCCE Sonoma aims to support the expanded use of grazing in California to achieve our collective fuels reduction goals by providing a service to connect people with land to people with animals.

According to Marshall Turbeville, CAL FIRE Battalion Chief, “Areas that have been grazed, have reduce the spread of dangerous and costly fires. I have noticed on several fires, including extreme fires, the fence lines, between grazed and ungrazed lands, the fire just stopped. And the one variable, the one difference, was grazing,” Grazing is an ecologically sound and effective way to reduce fine fire fuels, and in some situations, can be more cost-effective than alternative methods.

### **Why grazing?**

Grazing is a tool that uses domesticated animals to manage vegetation for a desired result. Other vegetation management tools include prescribed fire, mowing or herbicide treatments. To determine the appropriate tool for a specific parcel, one must consider a variety of factors, including terrain, vegetation type, infrastructure, treatment area size, and cost. If a landowner decides that his/her property is suitable for grazing, that landowner then needs to establish vegetation management goals. Well defined goals are important to ensuring successful grazing management is applied. Goals can include reducing fire fuel loads, improving soil health, reducing weeds and/or enhancing desired species. For example, professionally

managed grazing has the potential to be an ecologically and economically sustainable management tool for reduction of fire fuels. Existing data indicate there are two ways by which grazing impacts the fuel load: removal of vegetation, and hoof incorporation of fine fuels (Nader, et. al., 2007). Fuel management studies have shown that spread rate and flame length decrease as dry grass fuel loads decrease (Scott and Burgan 2005). Grazing can be more cost effective for reducing fuels on landscapes that are too steep, rocky, or remote for mowing or chemical treatment, or in the wildland-urban interface where burning is not an option. Grazing can also be more costly than alternative methods; however, depending on the site characteristics and landowner goals, it is often a desirable choice.

### **Which is the right grazing animal?**

Distinct species of grazing animals have different forage preferences. Cattle prefer grass but do consume some forbs and browse (woody species, such as brush). Goats prefer woody species and grass but will also select forbs. Sheep consume mostly grass and forbs and express a lower preference for woody plants. These are general statements and just because a particular grazing animal prefers and consumes a particular plant at one site, it does not necessarily mean that it will react in a comparable way when grazing in another plant community. Still, generalities can provide a starting point for developing a prescription for grazing. Deciding on the appropriate species requires consideration of the type of terrain and vegetation you want to manage – this is something UCCE can help you figure out!

### **Who is the appropriate grazer for your property?**

There is no one grazing strategy; every property is different and requires thoughtful consideration of how it should best be grazed. Site characteristics and landowner goals should form the basis for determining the optimal grazing system. To clarify the variable styles and scales of different grazing management systems, Stephanie Larson, Livestock and Natural Resources Advisor for UCCE Sonoma, developed a theoretical framework for thinking about grazing in terms of three tiers. Smaller property owners, in a similar geographic area or neighborhood, can work together as a community, grazing animals from property to property. These are referred to as “Tier 1” grazers. Larger parcels, not necessarily connected, both privately and publicly owned, can be grazed by contract grazers, referred to as “Tier 2 grazers.” Finally, properties owners that want to receive money for animals grazing their land, can lease out their property to grazers referred to as “Tier 3 grazers”. More details on each tier follows.

#### **Tier 1: Community / Neighborhood Grazing**

Community grazing involves small-scale livestock grazers using their animals to graze a community of small-scale property owners. These property owners range from ¼ acre to several acres; animals graze one parcel then are moved to a neighboring parcel. Having a grazing operation in the community increases community safety by grazing to reduce fire fuels on multiple properties. Community grazing can also:

- Provide internships to young, local people interested in contract grazing or meat/wool business.

- Lower carbon footprints by way of eliminating the need to transport animals long distances via truck and trailer and reducing the use of petrochemicals and synthetic herbicides.

### **Tier 2: Contract / Targeted Grazing**

Contract or targeted grazing is the application of a specific kind of livestock at a determined season, duration, and intensity to accomplish defined vegetation or landscape goals. The major difference between targeted grazing and traditional grazing management is that targeted grazing refocuses outputs of grazing from livestock production to vegetation and landscape enhancement. In the case of contract/targeted grazing, the landowner must have a clear vision of their desired goals regarding plant community and landscape, and the livestock grazer must have the skill to graze the livestock in a way that accomplishes those goals.

Contract/target grazing contractors often provide all necessary infrastructure (fencing, livestock water, predator protection, etc.); however, there are a variety of factors that impact the cost of a particular targeted grazing project. These include:

- Relative ease (or difficulty) of setting up infrastructure, including loading and unloading facilities.
- Projects in steep or difficult-to-access terrain require more labor and are therefore typically costlier.
- Access to livestock water; livestock grazers may need to haul water to the livestock.
- Risks, like vandalism, toxic plants, or proximity to high-value landscaping may increase the cost.
- Headache factors – like free-roaming pet dogs or neighbors who object to livestock or livestock guardian dogs – can increase the cost of a project.

### **Tier 3: Traditional Grazing: land leased on an annual or long-term basis**

Traditional grazers are livestock producers that own cattle, sheep and/or goats that are managed year-round on owned and/or rented properties – these grazers are interested in fulfilling their production goals. If they do not own grazing land, these livestock producers need to rent land for their animals to graze on. If a property is suitable for seasonal or continuous grazing, but the landowner lacks knowledge or desire to manage a grazing operation, leasing the land to a traditional grazer can be a good option. Rental fees are usually based on a per animal or per acre basis. Traditional grazers can haul their animals in and out of the leased property. If a property lacks infrastructure, a property owner and grazer can work together to install the necessary infrastructure to allow for grazing. These types of arrangements are best achieved by establishing a long-term lease and/or agreement – ensuring that both party's needs, and expectations are defined. Leasing lands for grazing can result in:

- A more cost-effective alternative for reducing fine and ladder fuels over large and rugged landscapes that may be inaccessible for equipment or hand crews.
- Income received from the grazing lease.

### **Connect with Your Match**

If you want to list your property for grazing or be a grazer, you can fill out the Match.Graze survey with details about your land or your grazing operation, <https://matchgraze.com/about>. This project was funded by Western SARE. For more information on Match.Graze, call the UCCE office at 707-565-2621.

### **References:**

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