



Dairy Pasture as a Valuable Resource

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Which produces more milk, healthier cows, improves soil structure and nutrient cycling, and contributes to water quality?
THIS...



ABOVE LEFT: Low density pasture. Lots of bare soil visible between plants. Cow grazing plants that are too short.
ABOVE RIGHT: Overgrazed continuously grazed pasture where animals have access to surface water and trample stream banks

OR THIS?



ABOVE: Jerseys grazing small grain and clover (left) and annual millet (right). Both herds moved twice per day to new pasture utilizing portable polywire fencing.

MAXIMIZE THE BENEFITS OF PASTURE

A pasture-based system is designed to **mimic natural herbivorous herds** such as bison, which grazed over large expanses of grasslands, moving frequently to avoid predators. In modern day grazing, we use portable temporary fences to move cows multiple times per day to avoid overgrazing damage.

Dense pastures act as a giant solar panel, **capturing solar energy** to grow high quality grass and clover, keeping the soil covered, sequestering carbon and building soil health, while also turning this solar energy into **high quality protein** in the form of milk and meat.

Animals graze on a **diverse ‘salad’** of grasses, clovers, and broad-leaved plants, which provide energy (sugar), protein, and minerals. Cows should be actively grazing on plants at least 8 inches tall. You don’t want to see cows standing around on what looks like a putting green. Or worse yet, cows in a dirt lot eating hay in the middle of June.

How often are the animals moved? It depends, but in a **management-intensive system**, cows may be moved every 8-12 hours. The pasture area (paddock) is then sized for what the herd’s feed intake demand is for that period of time. Occupancy periods should be short to **prevent overgrazing damage**.

When cows leave an area, the plants left behind should not be shorter than 3-4 inches. Plants then need time to recover before being grazed again. In the spring, this period can be 2-3 weeks, depending on precipitation. By late summer, the **recovery periods** may increase to 45 days or more.

A cow can physiologically take only so many bites per day. As managers, we want each bite to be a full mouthful, so she fills up her rumen (stomach) quickly. Ideally, a cow will spend 8 hours eating, 8 hours ruminating (chewing cud) and 8 hours sleeping. The more the cows chew their cud and sleep, the better for weight gain and milk production. We don’t want them to spend all their time trying to find something to eat. A cow who walks all day will not only have an empty rumen, but also be lean and tough or produce little milk.

With proper management, animals can achieve optimal production on high quality grasses and other pasture plants. Both dairy cows and grass-fed beef can provide the advantage of **Omega-3 fatty acids and conjugated linoleic acids (CLAs)** that a grass-based diet provides.



ABOVE: Holsteins are good grazers too! Cows out on lush spring pastures (left) and large scale grazing (right).