

Livestock Guardian Dogs (LGDs) in Solar Grazing

Why Are LGDs Essential for Solar Grazing?



Livestock Guardian Dogs (LGDs) provide cost-effective, sustainable protection for solar grazing operations, reducing livestock losses and supporting operational efficiency.

Predation Reduction:

LGDs can reduce livestock losses due to predation by over 90% (Texas A&M AgriLife Extension, EWF-028).

Increased Flock Security:

LGDs deter predators before they strike, reducing stress and improving overall animal health.

Minimized Wildlife Intrusion:

LGDs discourage wildlife from entering solar fields, reducing risks of equipment damage and safety concerns.



What Do LGDs Do?

LGDs provide 24/7 protection by:

- **Barking as a Primary Deterrent:**
Their presence and vocal alerts discourage predators before an attack occurs.
- **Territorial Defense:**
They patrol grazing areas, marking boundaries to keep predators at bay.
- **Reducing Sheep Stress:**
A protected flock grazes more efficiently, improving productivity.



Business Benefits of Using LGDs

COST-EFFECTIVE SECURITY

Reduces the need for expensive fencing, security patrols, or lethal predator control.

ESG & SUSTAINABILITY COMPLIANCE

Aligns with corporate environmental and ethical land management goals.

IMPROVED LIVESTOCK WELLBEING

Healthier, less-stressed sheep contribute to better grazing outcomes and profitability.

References & Resources

- Texas A&M AgriLife Extension (EWF-028) – “Livestock Guardian Dogs”
- Texas A&M Livestock Guardian Dog Program (sanangelo.tamu.edu)

What Are LGDs?

LGDs are **working protection dogs, not pets**. They are distinct from “guard dogs,” which are typically trained for property security.

- Bred specifically to **bond with and protect livestock**.
- Independent decision-makers that work without direct human commands.
- Utilizing LGD breeds specifically bred for livestock guarding is crucial to ensure proper temperament, instincts, and effectiveness.

Certain breeds have been selectively bred for centuries to guard livestock effectively. Common LGD Breeds:

- **Great Pyrenees** – Known for their calm demeanor and strong protective instincts.
- **Anatolian Shepherd** – Highly independent and excellent at deterring predators.
- **Maremma Sheepdog** – Loyal and well-suited for large grazing areas.
- **Akbash** – Intelligent and agile, ideal for predator-heavy environments.

CONSTANT PROTECTION

Unlike human security measures, **LGDs are with the flock 24/7**, actively monitoring and deterring threats. They are the true shepherds of the flock.

Providing for LGDs: Food, Water, Shelter

- **Feeding System:** Free-feeding or scheduled feeding ensures adequate nutrition.
- **Water Access:** Placed strategically to match livestock needs.
- **Shelter:** LGDs adapt to different environments, utilizing solar panels and natural land features for shelter.
- **Adaptability to Terrain & Climate:** LGDs are highly resilient and have been selectively bred to endure diverse environmental conditions. Their natural hardiness allows them to thrive alongside the livestock they protect, even in extreme weather conditions.

How to Interact with LGDs on Site

Solar sites present unique challenges. **To ensure safety and maintain the effectiveness of LGDs, follow these guidelines:**

- **Do Not Feed the Dogs:** LGDs have a controlled diet to keep them bonded to their flock and prevent behavioral issues.
- **Remain Calm if Approached:** If an LGD approaches, stand still and avoid sudden movements. Say a simple greeting like ‘hello’ or ‘good dog,’ then go about your work. The dogs are simply assessing the individual and whether they are a threat to the flock.
- **Do Not Call or Pet the Dog:** LGDs are not pets; engaging with them can disrupt their focus on livestock protection.
- **Higher Human Traffic:** O&M technicians should receive training on avoiding unnecessary interactions with LGDs, ensuring the dogs remain focused on their protective duties.