

AGS

ADVANCED GRAZING SYSTEMS

MENTOR HANDBOOK



MODULE 2 Concepts







MODULE 2 - CONCEPTS

A B C D E F Graze Period

Rest Period

Animal Impact

Stock Density

Soil Armour

Margins







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Module 2 - Grazing Concepts

A – Graze Period

Graze Period is the amount of time that your animals are grazing on a paddock. We want to prevent overgrazing. In order to do this we have to keep our graze period short enough to stop the "second bite". The animals need to be removed from the paddock before the plants are able to put up a new leaf after the animals have taken their first bite. Depending on your environment and the time of the year, this "second bite" could occur after only a few days. If the plants are using up stored energy to put up that new leaf, the energy reserves will be empty when the second bite occurs and the plant will be overgrazed.

B - Rest Period

The Rest Period is the amount of time that the paddock has to recover between grazing's. Here we are also managing to prevent the "second bite". Adequate rest must be given to the plants in order to ensure that the energy reserves have been replenished before the plants are allowed to be grazed for a second time. Again, depending on your environment and season, this could be anywhere from about 25 days to 365 days or more. We all have different environments, but we still need to make sure the rest period allows for the energy stores to be replenished.

C - Animal Impact

This is the physical and biological effect that the animals have on the soil. Physical stimulation on the land is caused by the animal's







 hooves. Animal impact can help with new seedling development, it can help recycle nutrients, it can break up capped soil, and help develop a polyculture of forage plants. Positive animal impact can improve the production of the land substantially, as it will step a lot of litter into the ground. Caution is required though as negative animal impact can also occur.

The biological impact that animals have on the system is also very important. The herbivore is a powerful tool in building biology in our system. Our goal is to add biology, or food for biology into the soil with manure and urine. Even the phlegm and saliva from the animals are adding to the health of our soils.

The herbivore is a keystone species in the grassland ecosystem. They add to the system with both their physical and biological impact.

D - Stock Density

This is the number of animal units per acre at a given time. Stock density can be described as how tightly, or how spread out your herd is when they are grazing. This is not to be confused with stocking rate, which is the number of animals you have on a pasture for the entire season. There are many different ways to measure this (animal days per acre, pounds per acre, stock days per acre, animal unit months). The higher the stock density, the better it is for the land. The two benefits to a higher stock density are improvement to plant utilization and better manure distribution. If you have high plant utilization, every plant is either bitten or stepped on, which allows every plant the same opportunity to regrow. Undesirables will not be given the advantage in reproducing with higher stock







 densities. We also get better manure distribution around the paddocks, which improve nutrient recycling.

E - Soil Armour

Soil armour is the protective layer on the surface of the soil. Residue is one of the most important aspects of good grazing management; however, many producers have a hard time accepting the idea of "wasted grass". Think of this residue left over as next year's fertilizer, or more importantly, next year's water holding capacity. This residue will break down and provide nutrients to your crop in the following year, but soil armour is so much more than that; it is the protective layer that allows the soil to function. It provides food, water and shelter for our soil biology and is a key component to allowing us to maintain a healthy water cycle. Soil armour reduces both runoff and evaporation.

F – Margins

Margins are an important component of grazing that are often overlooked, even by some very experienced graziers. We need to focus on more than just the animals, the grass and the ecology because if we are not making a profit, we won't be grazing for very long. Labour and equipment costs need to be factored into the AGS. A full profit center analysis is not practical for a mentorship, as each farm's overheads will vary a great deal. We can, however, provide producers with a simple contribution margin calculator to analyse the grazing profit center.







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