Introduction

- Ecoturf rhizoma peanut (RP) is a decumbent germplasm that achieves rapid ground cover following planting and shows potential for use in pastures.
- Optimal grazing management of Ecoturf is not known.

Objective

To determine the effect of length of regrowth interval (RI) and post-grazing stubble height (SH) on productivity, leaf dynamics, botanical composition, and root-rhizome mass of Ecoturf RP.

Materials and Methods

- **Location**: Gainesville, FL from June-October 2015
- **Treatments/Design**: Factorial combinations of three RI and two SH in three replicates of a completely randomized design:
  - RI - 1, 4, and 7 wk
  - SH - 4 and 8 cm
- **Response Variables**: Herbage accumulation (HA), RP root-rhizome mass, RP proportion in the sward, and post-grazing RP leaf mass.

Results

**Herbage Accumulation**:

- HA greater for 4- than 8-cm SH (HA; 9.1 vs. 6.5 Mg ha⁻¹) (Fig 1-a)
- HA greater for 1- than 7-wk RI (HA, 8.9 vs.7.0 Mg ha⁻¹), but 4- and 7-wk RI treatments did not differ (Fig 1-b)

**Root-Rhizome Mass and RP Proportion in Herbage Mass**

- After 1st year of grazing:
  - Root-rhizome mass (22.0 vs. 18.5 Mg ha⁻¹; Fig. 2a) and proportion of RP in pre-grazing herbage mass (93 vs 86%; Fig. 2b) were greater for 8- than 4-cm SH.

**Post-Grazing RP Leaf Mass**

- There was SH x RI interaction for post-grazing leaf mass (LM).
- When SH was 4 cm, the 1-wk RI had greater post-grazing LM than the 7-wk RI (106 vs. 55 g m⁻²; Fig. 3a), but with an 8-cm SH the 7-wk RI had greater post-grazing LM than the 1-wk (165 vs 125 g m⁻²; Fig 3b).

Discussion/Conclusions

In the first year of grazing:

- Herbage accumulation was greater for more frequently and intensively grazed treatments due in part to Ecoturf’s decumbent growth habit which protected leaf mass for regrowth.
- In contrast, RP proportion in the sward and root-rhizome mass were favored by taller post-grazing height.

**Key questions for Year 2**:

- Will productivity advantages associated with close, frequent grazing be sustained due to the decumbent growth habit of Ecoturf?
- Or will this type of grazing result in depletion of reserves and compromise future productivity and persistence?