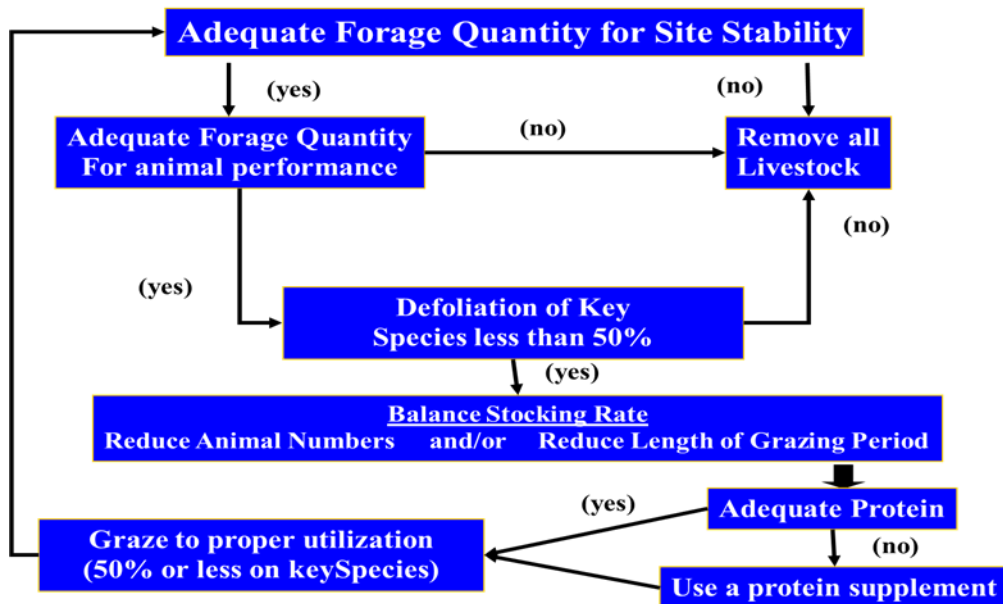


Hawaii Drought Management Decision Support Tool



A flow chart for grazing management decisions during drought (adapted from Reece et al. 1991. Drought Management on Range and Pastureland: A handbook for Nebraska and South Dakota. Nebraska Cooperative Extension publication EC91-123. University of Nebraska – Lincoln. Pp 23.).

Evaluate Current Forage Availability

1. What is the total number of acres grazed? _____.
2. Under normal conditions what is the estimated total forage production for the month of interest? _____.
3. For the current rainfall received what is the estimated total forage production? _____.

Maintain Site Stability:

4. Is the amount in 3 at least half of value in 2 (divide the value in 3 by the value in 2; if the result is ≥ 0.5 then enter a yes; if it < 0.5 then enter no)? _____.

If the answer to 4 is no then destocking to balance stocking rate is critical to maintain site stability.

If the answer to 4 is yes then proceed to part 5.

Hawaii Drought Management Decision Support Tool

Maintain Animal Performance:

5.

5a. Calculate daily forage demand of herd (#AUs x 26 lbs DM): _____.

5b. Determine the number of days available forage will support herd (50% of value in 3 / value in 5a): _____.

5. Is the forage availability sufficient to meet the forage demand of the current number of AUs for 30 days or more? _____.

(Note: if yes then graze to 50% of the available forage; if no then destock to balance forage demand with availability)

Project Forage Availability

1. Amount of rainfall received? _____.

2. Calculate Daily Forage Productivity (DFPQ x inches of rain): _____.

Note: DFPQ for Big Island is 3.2 lbs DM/acre/day/inch of rain

DFPQ for Kauai is 5.2 lbs DM/acre/day/inch of rain

DFPQ for Maui is 6.6 lbs DM/acre/day/inch of rain

3. Calculate Forage Production for desired period (i.e. 15 days; 30 days; value in 2 x # days): _____.

4. Calculate Total Forage Production for grazed Acreage (value in 3 x # acres): _____.

5. Calculate the number of days this production will support herd (value in 4 x 0.5 / 26 lbs/AU/day x # AU): _____.

NOTES: