## NC STATE UNIVERSITY

**Department of Crop Science** College of Agriculture & Life Sciences



## **GRAZING GUIDE**

This guide gives an idea about the target heights to start and stop grazing many plants. The guide will be useful to managers and planners who develop and implement grazing plans for any type of animal grazing these plants.

The target "stop grazing" height will ensure enough leaf area and/or reserve energy to provide good regrowth during the subsequent rest period; this is especially important to those plants that store reserve energy above the ground in the lower stem base. This guide also provides an estimate of the number of days of "rest" needed to regrow to the target "start" grazing height during certain seasons.

The expected recovery period (rest) should be helpful in estimating the grazing cycles of particular species. However, many environmental and management factors will impact the estimates of days required to regrow to the desired "start" height.

Species	Growth	Target Grazing Height inches		Expected Days of Rest	Comments
	Periods	to start	to stop	Before Regrazing	
	Apr-May	8" to bud	3-4	14-30	Do not start grazing the same area at 8" twice in the same season.
Alfalfa	Jun-Sep	12" to bloom	2-3	21-40	
	Nov-Dec	Frosted	2-3	90-120	Should usually have 45 days rest immediately prior to killing frosts; thereafter, the growth should be grazed before leaves drop.
	Apr-May	3-6	2-3	21-30	
Bahiagrass,	Jun-Jul	4-8	2-3	10-21	
Dallisgrass &	Aug-Sep	4-8	2-3	20-40	
associated summer species of Crabgrass, etc.	Oct-Nov	3+	2-3	Spring	Frosted growth can be used flexibly, but may need supplemental protein and should be used before leaves deteriorate.
	Apr-May	4-6	2-3	21-30	
Bermudagrass:	Jun-Jul	4-6	2-3	10-21	
Common, hybrid & seeded varieties	Aug-Sep	4-6	2-3	20-40	]
	Frosted	3+	2-3	Spring	Frosted growth can be used flexibly, but may need supplemental protein and should be used before leaves deteriorate.

Species	Growth Periods	Target Grazing Height inches		Expected Days of Rest	Comments
	Periods	to start	to stop	Before Regrazing	
	Feb-Mar	6-8	3-4	21-30	
	Apr-May	6-8	2-3	14-21	Control the height of ryegrass so it does not shade emerging bermudagrass.
Bermudagrass:	Jun-Jul	3-5	1-2	10-21	
Overseeded with	Aug-Sep	3-5	1-2	21-30	
Annual Ryegrass	Oct	2-4	1-2	45-60	Graze Bermuda close during late Sep and Oct to prevent shading of overseeded or volunteering (ryegrass) during their establishment phase. Do not allow animals to graze ryegrass until it reaches target height.
	Nov-Jan	6-8	3-4	45-90	Target heights directed toward ryegrass during Nov through Apr.
	Feb-Mar	6-8	3-4	21-45	ijegiuss during i tov unough ripi.
-	Apr-May	6-8	3-4	14-21	Control the height of legumes so they do not shade the emerging Bermuda.
Bermudagrass:	Jun-Aug	3-5	1-2	10-21	Ť.
Overseeded with Crimson Clover or Vetch	Sept-Oct	2-4	1-2	21-45	Graze Bermuda close during late Sep and Oct to prevent shading of overseeded or volunteering legumes during their establishment phase. Do not allow animals to graze winter crops until they reach target height.
	Nov-Jan	4-8	3-4	45-90	
	Feb-Mar	4-6	2-3	21-45	
-	Apr-May	4-6	2-3	14-21	Control the height of clovers so they do not shade the emerging Bermuda.
Bermuda grass: Mixed with Ladino and/or Red Clover	Jun-Jul	4-6	2-3	10-21	
	Aug-Sep	4-6	2-3	20-40	
	Oct-Nov	4-6	2-3	30-60	Graze Bermuda close during late Sep and Oct to prevent shading of overseeded or volunteering clovers. Do not allow animals to graze clovers until they reach target height during winter.
	Dec-Jan	4-6	3-4	45-90	

Species	Growth	He	Grazing eight ches	Expected Days of Rest	Comments
species	Periods	to start	to stop	Before Regrazing	Comments
	Mar-Apr	8-10	3-4	21-30	Control the height of prairiegrass so it does not shade the emerging Bermuda.
	May-Jun	6-8	3-4	14-30	
Bermuda grass: overseeded with prairiegrass	Jul-Aug	4-6	2-3	10-21	Manage Prairiegrass to produce mature seeds in Jul-Aug to provide for volunteer establishment during Sep and Oct. Control Bermuda growth in Sep and Oct by close grazing, but not so close that prairiegrass seedlings are eaten.
	Sep-Oct	4-6	2-3	45-90	Graze Bermuda close during late Sep and Oct to prevent shading of over seeded or volunteering prairiegrass during the establishment phase. Do not allow animals to graze prairiegrass until it reaches target height.
	Nov-Feb	6-10	3-4	45-90	
	Feb-Mar	6-8	3-4	21-30	Target heights directed toward smallgrain during Nov through Apr.
	Apr-May	6-8	2-3	14-21	Control the height of smallgrains so they do not shade the emerging Bermuda.
Bermudagrass: overseeded with	Jun-Jul	3-5	2-3	10-21	
Smallgrain	Aug-Sep	3-5	2-3	21-30	
	Oct	3-5	1-2	45-90	Graze Bermuda close during late Sep and Oct to prevent shading of over- seeded smallgrain during the establishment phase. Do not allow animals to graze smallgrain until it reaches target height.
-	Nov-Jan	6-8	3-4	45-90	Target heights directed toward smallgrain during Nov through Apr.
	Mar-May	4-6	2-3	14-30	If clover is White Dutch, then possible to graze to $1\frac{1}{2}$ inches.
Bluegrass, Kentucky	Jun-Aug	6-8	2-4	30-45	_
with White Clover	Sep-Oct	6-8	2-3	21-45	_
	Nov-Feb	4-6	2-3	Spring	
-	May-Jul	8-12	3-4	14-30	_
Caucasian Bluestem	Aug-Sep Oct-Dec	8-12 8-12	<u>3-4</u> 4-5	21-40 Spring	The late summer growth may be grazed in fall, but quality may be limiting and utilization will be improved with very high stock density grazing paddock in a short time period (<3 days).
Crabgrass and associated warm season species	May-Jun	6-8	2-3	14-30	
	Jul-Aug	6-8	2-3	14-30	]
	Sep-Oct	4-6	1-2	Replant in Spring	The late summer growth may be grazed in fall, but quality may be limiting and utilization will be improved with very high stock density grazing a paddock in a short time period (<3 days). Use frosted growth before leaves deteriorate.

Species	Growth Periods	He	Grazing ight ches to stop	Expected Days of Rest Before Regrazing	Comments
_	Sep-Oct	6-8	3-4	45-60	
Crimson Clover and mixtures with Ryegrass or	Nov-Jan	6-8	3-4	30-90	Control the height of the smallgrain or ryegrass so they are not shading the clover.
Smallgrain	Feb-Mar	6-8	3-4	21-45	
8	Apr-Jun	6-8	2-3	14-30	
Crop Residue: (Corn or Sorghum or Cotton Stalks)	Sep-Dec	Immediately following harvest	Leave some residue for soil protection if cover crop is not planted	Not applicable	It is best to use residue as soon as possible following crop harvest to minimize deterioration of fodder. It is important to leave residue for cover or plant cover crop.
	Mar-Apr	4-6	2-3	30-45	
Fescue or	May-Jun	6-8	2-3	14-30	1
Orchardgrass with	Jul-Aug	6-8	3-4	30-60	
or without Ladino Clover	Sep-Oct	6-8	2-3	21-35	If mixture is to be "stockpiled" in autumn, clover may be shaded if canopy reaches more than 10-12 inches in height prior to grazing.
	Nov-Feb	4-6	2-3	45-90	Stockpile will be taller; stripgraze.
	Feb-Mar	4-6	2-3	30-45	
Fescue (<70%) mixed with Bermuda or Crabgrass	Apr-Jun	6-8	2-3	14-30	Grazing height during the summer is dictated by the species to be favored. Shorter "stop grazing heights" (1-2 inches) will favor Bermuda and Crabgrass and taller (>3") will favor the Fescue.
	Jul-Aug	6-8	3-4	21-45	
	Sep-Oct	6-8	2-3	21-35	
	Nov-Jan	4-6	2-3	45-90	
Gamagrass, Eastern	Apr-Jun	14-24	6-8	21-30	During the establishment year, allow plants to reach seed head stage prior to grazing or harvesting, leaving minimum of 10-12" stubble for winter cover.
	Jul-Sep	14-24	6-8	21-45	
	Oct-Nov	12-46	6-8	Spring	The late summer growth may be grazed in fall, but utilization will be improved with very high stock density grazing a paddock in a short time period (<3 days). Allow 10-12" growth prior to frost.
Kudzu	May-Sep	Full leaf out and stems elongating	For regrowth leave >50% leaf coverage	30-45	To eradicate, keep canopy completely defoliated, especially in late summer.

Species	Growth Periods	Target Hei inc to start	ght	Expected Days of Rest Before Regrazing	Comments
	May-Jun	6-8	3-4	30-45	
Lespedeza, Annual	Jul-Sep	4-6	2-3	21-45	1
(Kobe and Korean)	Frosted	4-6	2-3	Spring	Use all frosted growth before leaves drop.
	Apr-May	8-12	4-6	30-45	
Millet: Foxtail, German, Browntop	Jun-Aug	Boot to Heading	2+	No re- growth following stem elongation	The late summer growth may be grazed in fall, but utilization will be improved with very high stock density grazing a paddock in a short time period (<3 days).
	May-Jul	14-20	6-8	14-30	
Millet: Pearl, Hybrid or Dwarf	Aug-Oct	14-20	6-8	21-40	The late summer growth may be grazed in fall, but utilization will be improved with very high stock density grazing a paddock in a short time period (<3 days).
	Oct-Nov	6-10	3-4	30-45	
	Dec-Jan	6-8	3-4	45-90	
	Feb-Mar	6-8	3-4	21-30	
Millet (Pearl or Hybrid): Double cropped with	Apr-May	6-8	2-3	Millet planted in May/June	Annual Ryegrass and smallgrain growth will decline sharply in May and the Millet will be planted.
Annual Ryegrass or Smallgrain	Jun-Jul	14-20	6-8	14-21	Millet planted in late May or early June into ryegrass/smallgrain stubble or following cultivation.
	Aug-Sep	14-20	6-8	21-30	Millet used by end of September (grazed or clipped to 2-3" stubble) so that ryegrass or smallgrain can be planted.
	Feb-Mar	6-8	3-4	30-45	
F	Apr-Jun	6-8	3-4	14-30	
Prairiegrass: (Rescue grass,	Jul-Aug	6-8	3-4	21-35	Allow one seed crop to mature for volunteer seeding in fall.
"Matua")	Sep-Oct	6-8	3-4	21-35	4
	Nov-Jan	6-8	3-4	30-60	
Red Clover and mixtures with cool- season grasses	Apr-May	6" to bud	3-4	14-21	
	Jun-Sep Nov-Dec	10" to bud Frosted	<u>3-4</u> 2-3	21-40 Spring	Should usually have 45 days rest immediately prior to killing frosts; thereafter, the growth may be grazed before leaves drop.
			4	30-45	
	Sep-Oct	6-10	4	30-45	
	Sep-Oct Nov-Jan	6-10 6-8	4 3-4		-
Ryegrass, Annual	Sep-Oct Nov-Jan Feb-Mar			<u> </u>	

Species	Growth Periods	He inc to start	Grazing eight ches to stop	Expected Days of Rest Before Regrazing	Comments
Smallgrain (Barley, Oat, Rye, Triticale, Wheat)	Oct-Dec Jan-Feb Mar-May Jun	6-10 6-8 6-12 3+	3-4           3-4           2-3           1-2	30-90           30-60           14-30           Replant in fall	
	Oct-Nov	6-8	4	30-45	Potential prussic acid poisoning for 3 days after the first killing frost or when grazing prior to 18" height.
	Dec-Jan	6-8	3-4	45-60	
Sudangrass,	Feb-Mar	6-8	3-4	21-30	]
Sudangrass, Sorghum-Sudan: Double cropped with Annual Ryegrass or	Apr-May	6-8	2-3	Summer annual planted	Annual Ryegrass and smallgrain growth will decline sharply in May and the summer grass will be planted.
Smallgrain	Jun-Jul	18-24	5-7	14-21	Summer annuals planted in late May
	Aug-Sep	18-24	5-7	21-40	or early Jun. Summer annual used by end of Sep (grazed or clipped to 2-3 inch stubble) so that a winter grass can be planted into stubble or into prepared seedbed.
	Apr-May	18-24	5-7	21-30	
	Jun-Jul	18-24	5-7	14-21	
Sudangrass,	Aug-Sep	18-24	5-7	21-40	
Sorghum- Sudangrass, Johnsongrass	Oct-Nov	6+	2	n/a	The late summer growth may be grazed in fall, but utilization will be improved with very high stock density grazing a paddock in a short time period (<3 days). Potential prussic acid poisoning for 3 days after the first killing frost or when grazing prior to 18" height.
Switchgrass, Indiangrass, Big Bluestem	Apr-Jun	14-18	5-7	21-30	During establishment year, allow plants to reach seed head stage prior to grazing, leaving minimum of 10- 12" stubble for winter cover.
	Jul-Aug	18-22	5-7	21-40	
	Sep-Oct	16-20	8-12	Spring	The late summer growth may be grazed in fall, but utilization will be improved with very high stock density grazing a paddock in a short time period (<3 days). Allow 10-12" growth prior to frost.

## Forage Fact Sept 2005. Revised July 2012

Prepared by:

James T. Green, Jr., Douglas S. Chamblee

Crop Science Dept.



College of Agriculture and Life Sciences, NC State University School of Agriculture and Environmental and Allied Sciences, NC A&T State University

Distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914. Employment and program opportunities are offered to all people regardless of race, color, national origin, sex, age, or disability. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.