

2000 Field Season Clipped NPP and Util plots- (Check off sheets for 24, 19, 11)

Exclosure 24 U/G	X	Y	Util (4m to East)	Exclosure 24 G/G	X	Y	Util (4m to East)
1C	27	28	23, 28	1C	13	57	09, 57
2C	33	34	29, 34	2C	32	39	28, 39
3C	20	03	16, 03	3C	05	52	01, 52
4C	07	16	03, 16	4C	17	39	13, 39
<b>24 U/U</b>			No Util	<b>24 G/U</b>			No Util
1	21	15		1	21	15	
2	23	11		2	23	11	
3	14	29		3	14	29	
4	19	28		4	19	28	

Exclosure 19 U/G	X	Y	Util (4m to East)	Exclosure 19 G/G	X	Y	Util (4m to East)
1C	14	49	18, 49	1C	13	07	09, 07
2C	10	37	14, 37	2C	30	30	26, 30
3C	09	29	15, 29	3C	28	51	24, 51
4C	06	31	10, 31	4C	06	15	02, 15
<b>19 U/U</b>			No Util	<b>19 G/U</b>			No Util
1	21	15		1	21	15	
2	23	11		2	23	11	
3	14	29		3	14	29	
4	19	28		4	19	28	

Exclosure 11 U/G	X	Y	Util (4m to East)		Exclosure 11 G/G	X	Y	Util (4m to East)	
1C	55	35	51, 35		1C	21	50	25, 50	
2C	47	30	43, 30		2C	28	46	32, 46	
3C	21	18	17, 18		3C	47	25	51, 25	
4C	13	12	09, 12		4C	32	28	37, 28	
11 U/U			No Util		11 G/U			No Util	
1	21	15			1	21	15		
2	23	11			2	23	11		
3	14	29			3	14	29		
4	19	28			4	19	28		

U:SGS-LTER Field Station/Field Studies/GZTX/2000/clipping check for 07-5A-5B

2000 Field Season Clipped NPP and Util plots- (Check off sheets for 07, 5a, 5b)

<b>Exclosure 07 U/G</b>	<b>X</b>	<b>Y</b>	<b>Util (4m to East)</b>		<b>Exclosure 07 G/G</b>	<b>X</b>	<b>Y</b>	<b>Util (4m to East)</b>	
1C	07	32	03, 32		1C	27	50	23, 50	
2C	10	30	06, 30		2C	27	29	23, 29	
3C	13	37	09, 37		3C	55	55	51, 55	
4C	18	18	14, 18		4C	18	48	14, 48	
5C	10	36	06, 36		5C	43	62	39, 62	
6C	27	26	23, 26		6C	04	16	01, 16	
<b>07 U/U</b>			No Util		<b>07 G/U</b>			No Util	
1C	21	15			1C	21	15		
2C	23	11			2C	23	11		
3C	14	29			3C	14	29		
4C	19	28			4C	19	28		
5C	07	15			5C	07	15		
6C	05	04			6C	05	04		
<b>07 roun</b>			No Util		<b>07 roun</b>			No Util	
1C	23	15			1C	23	15		
2C	23	11			2C	23	11		
3C	14	29			3C	14	29		
4C	18	28			4C	18	28		
5C	07	15			5C	07	15		
6C	05	04			6C	05	04		
7C	05	02			7C	05	02		

Exclosure 5A U/G	X	Y	Util (4m to East)	Exclosure 5A G/G	X	Y	Util (4m to East)
1C	59	25	55, 25	1C	29	46	25, 46
2C	55	12	51, 12	2C	20	42	16, 42
3C	19	24	15, 24	3C	56	46	52, 46
4C	15	10	11, 10	4C	17	26	13, 26
5C	06	27	02, 27	5C	55	40	51, 40
6C	39	19	35, 19	6C – **3 m to east	04	16	01, 16
5A U/U			No Util	5A G/U			No Util
1C	21	15		1C	21	15	
2C	23	11		2C	23	11	
3C	14	29		3C	14	29	
4C	19	28		4C	19	28	
5C	07	15		5C	07	15	
6C	05	04		6C	05	04	
5A roun			No Util	5A roun			No Util
1C	23	15		1C	23	15	
2C	23	11		2C	23	11	
3C	14	29		3C	14	29	
4C	19	28		4C	18	28	
5C	07	15		5C	07	15	
6C	05	04		6C	05	04	
7C	05	02		7C	05	02	

Exclosure 5B U/G	X	Y	Util (4m to East)		Exclosure 5B G/G	X	Y	Util (4m to East)	
1C	59	25	55, 25		1C	20	49	16,49	
2C	43	14	39, 14		2C	30	53	26,53	
3C	26	29	22, 29		3C	53	54	49,54	
4C	09	15	05, 15		4C	48	51	44,51	
5C	50	16	46, 16		5C	28	33	24,33	
6C - * 3m to east	04	16	01, 16		6C - * 3m to east	04	16	01, 16	
<b>5B U/U</b>			No Util		<b>5B G/U</b>			No Util	
1C	21	15			1C	21	15		
2C	23	11			2C	23	11		
3C	14	29			3C	14	29		
4C	19	28			4C	19	28		
5C	07	15			5C	07	15		
6C	05	04			6C	05	04		
<b>5B roun</b>			No Util		<b>5B roun</b>			No Util	
1C	23	15			1C	23	15		
2C	23	11			2C	23	11		
3C	14	29			3C	14	29		
4C	18	28			4C	18	28		
5C	07	15			5C	07	15		
6C	05	04			6C	05	04		
7C	05	02			7C	05	02		

## Grinding and Combining Guidelines for LTER GZTXNPP (Grazing-Texture Experiment net primary production)

1. Before grinding the samples for each plot, compare the field samples that you find in the plot sample bag to the species listed for that plot on the Biomass List for the NPP. Check off the species on the spreadsheet as you find them. Keep in mind that the OPPO (cactus) has been removed from the plot bags, so you should not find any OPPO in the sample bags. If you do find any OPPO in the plot sample bag, please let Judy know. If there are any discrepancies between what you find in the plot bag and the species you see on the Biomass List for that plot, please put the bag aside along with a note explaining the problem for Judy to read.
2. If everything matches up between the list and the bag, separate the species for grinding according to this plan:
  - a. OPPO (should already be separate; do not grind).
  - b. BOGR and BUDA (combine to grind, or grind BOGR or BUDA alone if only one species is found on a given plot).
  - c. All Others (all samples other than a and b will be combined for grinding and labeled OTHER).

All species will not be found on every plot, but separate the ones you do find according to this plan. Total weight of the sample to be ground needs to be at least two grams to be put through the Wiley Mill. Samples with a total weight of less than two grams will be ground in the ball mill-grinding step.

3. When preparing to grind a sample, first dump the sample out onto a tray or pan so that you can remove any foreign matter from the sample. Foreign matter may include rocks, insects, animal scat, other plant species, etc. Hopefully, most or all of the foreign matter will have been removed when the sample was weighed.
4. When you have finished checking the sample, go ahead and put it into the top of the grinder. It's OK to bend or break the sample in order to make it fit. **Always use the wooden dowel to push the sample in to the grinder. Never use your hands to push the sample into the grinder!** It's a good idea to let the wooden dowel rest in the top of the grinding funnel, so that sample doesn't "spit out" the top of the grinder after you turn the grinder on.
5. Before turning the grinder switch on, make sure that the grinder door is tightly closed and the glass "catching jar" is screwed securely onto the bottom of the grinder. Then you can secure the safety lock and turn the grinder on.
6. Quite often you will need to tamp down on the sample with the wooden dowel to

force the sample to enter the grinding chamber. When the sample enters the grinding chamber the grinder will noisily chop it up. If the sample is too large or bulky, the blades may not rotate and you will not hear a grinding noise. This does not happen very often, but when it does occur it's important to turn the grinder off right away so the motor doesn't burn out. Then you can open up the door to the grinding chamber to free up the sample that is "stuck" with a sturdy pair of tweezers.

7. You can see the ground material coming out of the grinder into the catch jar at the bottom. When the flow of sample is down to a minimum, you can consider your sample ground and turn the grinder off.
8. Make sure to disengage the safety lock first thing, so that the grinder can not be accidentally restarted.
9. Now the grinding door may be opened and the small bits of remaining sample May be swept into the catch jar with a toothbrush. **(Once again, please don't use your hands!)**
10. The ground sample may be placed in a labeled coin envelope and put aside for ball grinding in the future. The coin envelope should be labeled identically to the plot sample bags with the species described as either BOGR/BUDA or OTHER. If the sample is too large to fit in one coin envelope, use as many coin envelopes as necessary. Label all of the envelopes as usual and then add 1 of 2, 2 of 2, etc.
11. The grinder and catching jar must be vacuumed out thoroughly between samples to prevent cross-contamination. Use a brush to turn the grinding blades and remove stuck sample if need be, **not your hands.**
12. Once the grinder is clean, you're ready to start another bag of plant samples.