



Plant Materials Technical Note 8

USDA Natural Resources Conservation Service

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Evaluating Eastern Gamagrass Stands When Planted in 28''- 40'' Rows

Eastern gamagrass plant populations are a critical component in achieving good stands. Often, because of poor weather, planter problems, seed quality, and other factors, producers obtain final stands far less than desired. Since this can lower forage yield and allow non-desirable species to move into the planting, a careful evaluation is necessary to determine the actual population obtained.

Plantings of eastern gamagrass should be evaluated at the end of the first growing season and two to three months after green up the second year. Stands may be evaluated using the method outline below. The method involves stopping at randomly selected parts of the field and counting plants (that is, taking a sample) within rows. Table 1 recommends the number of samples to take, or stops to make, per field.

At each stop, count the number of plants in an area measuring 50 feet along the row. Total the number of plants counted at all stops and divide by the number of stops. This will be your average row count. Using Table 2, look under the proper row width column and find the number that is closest to the average counted. Then find the corresponding plant population to determine stand.

Table 1 - Number of Samples per Field

No. Samples	Field Size (acres) *
7	1 to 15
12	16 to 30
17	31 to 50

* A field larger than 50 acres should be broken into 2 units.
After taking samples remove the extreme high and low sample.

Table 2 - Estimating Stand

Plants per Acre	Row Width (Inches)				
	28	30	36	38	40
	(Average Number of Plants per 50 ft row)				
2,000	5.5	6	7	7.5	8
2,500	7	7.5	9	9	9.5
3,000	8	8.5	10.5	11	11.5
3,500	10	10.5	12	13	13.5
4,000	11	11.5	14	14.5	15.5
4,500	12	13	15.5	16.5	17.5
5,000	14	14.5	17.5	18	19
5,500	15.5	16	19	20	21
6,000	17	17.5	21	22	23
6,500	18	19	22.5	24	25
7,000	19.5	20	24	25.5	27
7,500	21	22	26	27.5	29
8,000	22	23	28	29	31
8,500	24	24.5	29.5	31	32.5
9,000	25	26	31	33	34.5
9,500	26.5	27.5	33	34.5	36.5
10,000	28	29	34.5	36.5	38.5
10,500	29.5	30.5	36.5	38.5	40.5
11,000	31	32	38	40	42.5
11,500	32	33	40	42	44.5
12,000	33	35	42	43.5	46
12,500	33.5	37.5	43	45.5	48
13,000	35	37.5	45	47.5	49.5
13,500	36	38.5	46.5	49	51.5
14,000	37.5	40	48	51	53.5
14,500	39	41.5	50	53	55.5
15,000	40	43	51.5	54.5	57.5
15,500	41.5	44.5	53.5	56.5	59.5
16,000	43	46	55	58	61
16,500	44	46	57	60	78

Red = plant population of 1 plant or less per 5 foot of row length, poor stand; need to consider re-establishment or reseeding.

Yellow = plant population averages 1 plant per 4 foot of row length, minimal stand; need to consider reseeding to enhance stand.

Blue = plant population averages 1 plant per 3 foot of row length, moderate stand; monitor planting and reseed as needed to fill in gaps

Green = plant population averages 1 plant per 2 foot of row length, good stand, adequate plant population to manage stand.

Purple = plant population equal to or greater than 1 plant per foot of row, excellent stand.