Texas A&M AgriLife Extension

Agriculture and Natural Resources

2013 Deer Food Plot Establishment and Comparison

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Summary

Jasper County's Ag and Natural Resources Program Area Committee identified Wildlife Food plot establishment as one of the areas that an result demonstration could be used to address the need to help the public improve the way they plant and establish food plots for wildlife. Iron & Clay cowpeas were used on both a prepared seed bed and an unprepared seed bed to compare the germination rate differences of both types of planting methods. A 30'X100' plot was tilled and drug to be used as the prepared seed bed, while the unprepared seed bed remained untilled and was not improved in any way. Iron & Clay cowpeas were broadcast by hand spreader over both the prepared and unprepared seed beds. The prepared seed bed was then drug in order to maximize seed-to-soil contact as part of the prepared seed bed process. Germination rates were measured by counting the viable sprouts within 1 sq. ft. on the prepared as well as the unprepared seed beds. This was replicated 3 times. Results indicated that 83% more seed germinated on the prepared seed bed as opposed to the unprepared seed bed. These results support the practice of preparing the seed bed before planting to improve germination rates.

Objective

The objective of this result demonstration was to compare the germination rate difference between planting on a prepared seed bed and planting on an unprepared seed bed. Because our youth are continually becoming more involved in hunting they were also targeted for the primary audience and were encouraged to participate in establishment of the demonstration plot.

Materials and Methods

Iron & Clay cowpeas were planted in a 30'X100' plot at a rate of 85lbs./acre using a Scott's Hand broadcaster. A portion of the plot was tilled, broadcast with seed and then drug to maximize seed-to-soil contact. A second portion of the plot remained unimproved and seed was also broadcast on it at the rate of 85lbs./acre.

Small Excluder cages were used to monitor the foraging pressure. A Small Wildgame Innovations Game Camera was also used to monitor activity on the food plots. Germination rates were measured and recorded by counting viable sprouts within a square foot. This measurement was replicated three times at random in both the prepared and unprepared seed beds.

Results and Discussion

The results of the germination comparisons are in the table below.

*Sample numbers are of viable sprouts within 1 sq. ft.

Plot	Sample 1	Sample 2	Sample 3	Average
Prepared Seedbed	15	17	18	16.6
Unprepared Seedbed	2	0	4	2
Percent increase in germination rate from unprepared vs. prepared				**83%**

Sprouts shown with Excluder Cage to help show foraging pressure.

Conclusions

The objective of this demonstration was met. Iron & Clay cowpeas were broadcast by hand spreader over both the prepared and unprepared seed beds. The prepared seed bed was then drug in order to maximize seed-to-soil contact as part of the prepared seed bed process. Germination rates were measured by counting the viable sprouts within 1 sq. ft. on the prepared as well as the unprepared seed beds. This was replicated 3 times. Results indicated that 83% more seed germinated on the prepared seed bed as opposed to the unprepared seed bed. These results support the practice of preparing the seed bed before planting to improve germination rates.

In the future it would be beneficial to apply glyphosate or a similar herbicide before planting in order to further reduce weed competition. Additionally, after a drag is used it would also be beneficial to use a roller to further increase seed to soil contact.

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