GROWER BENEFIT FROM USE OF SUGARBEET PLANTER TEST STAND

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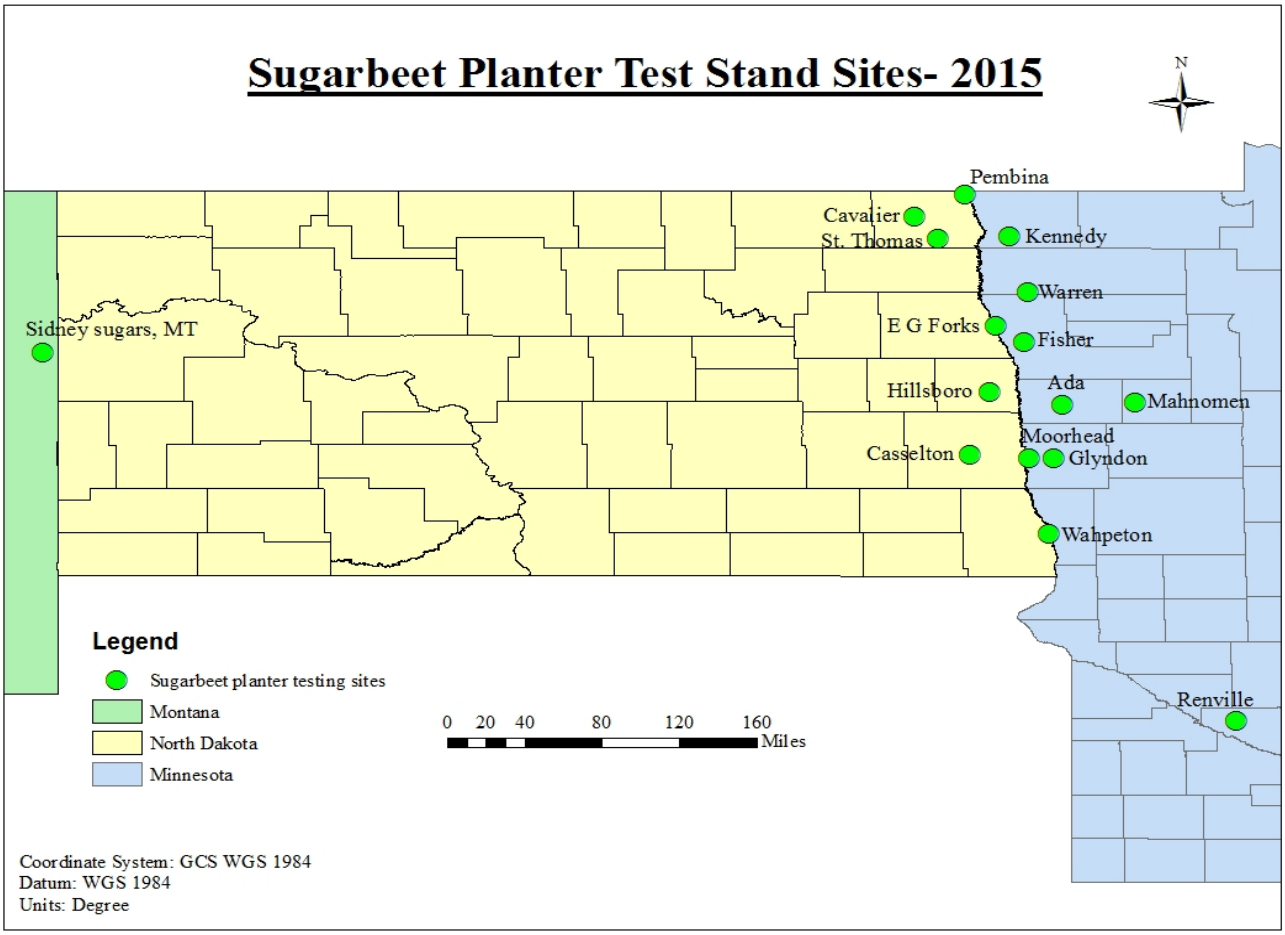
Introduction

A considerable problem in sugarbeet production over the years has been the establishment of an adequate number of evenly spaced plants. Plant spacing is largely determined by how well the planter is adjusted and performing. Certainly good seedbed preparation, improved seed genetics, move to planting pelleted seed, slower speeds at planting, predominate use of vacuum planters have all resulted in better stand uniformity and establishment. However without proper planter adjustments and maintenance, excellent germination and maximum yield and quality would be more difficult to achieve.

Objectives

Assist growers in adjusting and maintaining sugarbeet planter units to obtain optimal operation for establishing uniform sugarbeet stand establishment



Discussion

Sugarbeet planter test stand clinics are held each year in the Red River Valley, Southern MN, and Eastern MT (left). Test stand clinics offer sugarbeet growers the opportunity to evaluate their sugarbeet planters and identify problems before they result in crop yield loss. Sugarbeet planter test stand clinics have been an important part of pre-season field preparations of sugarbeet farmers for approximately 35 years. Every year from late February through the middle of April test stand clinics are held from one to three days at each location. Because of the high cost of seed, planter maintenance is a critical factor in optimizing plant establishment. Research and time-tested experience indicate that high stand establishment is the most critical component in producing good yields and high sugar content. Accuracy of seed placement, which is a key factor in stand establishment, is evaluated and optimized at the sugarbeet planter test stand clinics. During the planter test stand clinics, growers can discover defective planter parts and receive help adjusting, repairing or replacing them. Additionally, growers can compare coated seed and pellets of different sizes, match planter plates to seed size used, evaluate vacuum settings, and get information from planter experts, seed dealers, agronomists and other growers. Planter calibration from commercial entity

costs minimum $25 per unit. It is estimated that planter test stand calibration program (provided by NDSU and funded by Sugarbeet Board) saves attending sugarbeet growers around $388,750 and also helps by maximizing the efficiency of seed use and improved stand establishment.

Table 1. Sugarbeet test stand clinic locations and cost of planter stand calibration during 2015

	Location	Estimated number of units tested		$ Value of service @ $25.00/unit
1	Sidney MT. – JD Sunrise Equipment	500		12,500.00
2	Renville MN. - SMSC	2250		56,250.00
3	Wahpeton ND. – Mn Dak Sugar COOP	2000		50,000.00
4	Kennedy MN. – Kitson Co. Equip.	800		20,000.00
5	Warren MN. – Evergreen Implement	1250		31,250.00
6	EGF MN. – Steve Adams Farm Shop	950		23,750.00
7	Mahnomen MN. – Evergreen Imp.	400		10,000.00
8	Ada MN. - Halstad Elevator Agronomy	600		15,000.00
9	Moorhead MN. – Betaseed Inc.	800		20,000.00
10	Moorhead MN. – Am. Crystal Sugar	1100		27,500.00
11	Glyndon MN. – Syngenta/Hilleshog	300		7,500.00
12	Pembina ND. – Hefty Seeds	1000		25,000.00
13	St. Thomas ND. – M&M Farms	1200		30,000.00
14	Cavalier ND. – Cavalier Equipment	1100		27,500.00
15	Hillsboro ND. – Valley Plains Equip.	750		18,750.00
16	Fisher MN. – Steve Williams Shop	1200		30,000.00
17	Casselton ND. – RDO JD Equipment	400		10,000.00
	TOTAL	**15,550**		**$388,750.00**

Summary

In summary a problem is found in at least one if not several of the individual row units brought in by the growers. By correcting or fixing the problem we see more uniform stands, better seedling emergence, have fewer doubles and skips, improved defoliation and harvest-ability, better sugarbeet storage which leads to the most efficient use of high cost seed. Also by participating in one of our planter test stand clinics growers are reminded that it is just as important to maintain and not overlook other important working parts of your planter. Overall increased planter performance is observed with proper planter maintenance by sugarbeet growers. The condition of the planter units as affected by storage, adjustment or replacement of parts greatly influences the degree of success in proper seeding and uniform stand establishment.

Organizing the clinics is a major undertaking each year. It requires funding, advertising, coordination with agronomists, seed companies, growers and machinery dealerships who open up their shops at each clinic location for us to schedule, set up and run planter test stand clinics. Thanks to all who help make this program successful.