**2020 Final Report to the Tennessee Soybean Promotion Board**

**Project Number:** 19-38-R

**Title:** Technical Support for UT Variety Testing Program

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**Year and Amount: 2020** funded amount, $37,800

**Purpose:** The goal of the UT Variety Testing Program is to provide unbiased yield and agronomic data on crop varieties of different brands being offered for sale to TN producers. Funding provided by the TSPB helped to achieve this goal by: (1) funding a portion of the salary plus fringe benefits to support the variety testing program research associate (Aleksandra Wilson), and (2) provide funding to support personnel, supplies, and maintenance associated with the soybean variety trials at four UT AgResearch & Education Centers (RECs).

**Accomplishment:** In 2020, 148 soybean varieties were submitted by 4 public institutions and 15 private companies (for evaluation in UT’s replicated small plot variety trials. Nine entries were dropped after the entry deadline resulting in evaluation of 139 varieties. Herbicide tolerance varied by entries with the majority of entries falling into the Roundup-Ready Xtend (R2X) category (61 entries) (Table 1). Other herbicide tolerance groups included Roundup-Ready (RR), Roundup-Ready 2 (RR2), Glyphosate tolerant (GT), Liberty-Link (LL), Enlist E3, Sulfonylurea tolerant (STS) and stacks of these traits. Total entries falling into each of these categories are given in Table 1. Varieties were divided by maturity group into the following tests: MG3 (9 entries), MG4E (35 entries), MG4L (72 entries), MG5 (23 entries). Replicated small plots were planted at AgriCenter International (Memphis) and the following AgResearch and Education Centers (REC): West Tennessee (Jackson), Highland Rim (Springfield; irrigated and non-irrigated tests), Middle Tennessee (Spring Hill), East Tennessee (Knoxville), and Milan (Milan; irrigated and non-irrigated tests).

Harvest was completed 1 Dec. 2020 and results were analyzed and sent for review by industry collaborators. Results were posted on news.utcrops.com and search.utcrops.com on 10 Dec. 2020. Approximately two thousand copies of the “2020 Soybean Variety Tests in Tennessee” publication have been printed and will be distributed through UT Extension agents. A copy of this report can be found on <https://search.utcrops.com/soybean>.

**Anticipated Publications from this project**

V. Sykes, R. Blair, H. Kelly, A. Willette, V. Pantalone, and A.T. McClure. 2020. Soybean Variety Tests in Tennessee 2020. UT Ext. PB 1889.

**Variety Test Website:** **search.utcrops.com/soybean**

**Table 1.** Total number of soybean variety entries within each herbicide tolerance trait class and maturity group in the 2020 UT REC soybean variety trials.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **2020 Entries** | |  |  |  |  |
|  | **MG3** | **MG4E** | **MG4L** | **MG5E** | **Total** |
| **Conv.** |  | 1 | 7 | 7 | **15** |
| **STS** |  | 1 | 1 |  | **2** |
| **LL** |  |  |  |  | **0** |
| **RR, RR2** |  | 1 | 2 | 2 | **5** |
| **R2X** | 6 | 12 | 33 | 10 | **61** |
| **LLGT27** | 2 | 3 | 2 |  | **7** |
| **R2X/STS** |  | 13 | 14 | 2 | **29** |
| **XtendFlex** |  |  |  |  | **0** |
| **E3** | 1 | 3 | 6 | 2 | **12** |
| **E3/STS** |  | 1 | 7 |  | **8** |
| **Total** | **9** | **35** | **72** | **23** | **139** |