**September 21, 2012**

Table1. Analysis of variance and means for Single, double, triples and blanks as influenced by operator, spring type. Seeds were large round**.** Values are the averages from 200 planter strikes for the **Hard Spring** type.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Source of variation | df | Singles¶ | Doubles¶¶ | Triples¶¶¶ | Blanks† |
|  |  | Sig. level |
| Operator | 1 | 0.0424\* | 0.2787 ns | 0.1544 ns | 0.1788ns |
|  |  | Operator means |
| Operator 1 |  | 7.20AB | 1.75A | 0.10A | 0.85A |
| Operator 2 |  | 8.15AB | 1.40A | 0.00 | 0.45A |

Treatment means with the same letter are not statistically different

\*,\*\*, \*\*\* significant at the 0.1, 0.05, and 0.01 probability levels, respectively

¶Number of strikes where 1 seeds were released

¶¶Number of strikes where 2 seeds were released

¶¶¶ Number of strikes where 3 or 4 seeds were released

†Number of strikes where no seeds were released

NS-Not significant
Operator 1 = Peter

Operator 2 = Sulu

Table2. Analysis of variance and means for double, triple and total number of seeds as influenced by operator and spring type. Values are the averages from 200 planter strikes for the **Light spring** type.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Source of variation | df | Singles¶ | Doubles¶¶ | Triples¶¶¶ | Blanks† |
|  |  | Sig. level |
| Operator | 1 | 0.2407ns | 0.1828ns | 0.2675 ns | 0.5435ns |
|  |  | Operator means |
| Operator 1 |  | 6.75A | 2.25A | 0.30A | 0.85A |
| Operator 2 |  | 7.35A | 1.65A | 0.15A | 0.70A |

Treatment means with the same letter are not statistically different

\*,\*\*, \*\*\* significant at the 0.1, 0.05, and 0.01 probability levels, respectively

¶Number of strikes where 1 seeds were released

¶¶Number of strikes where 2 seeds were released

¶¶¶ Number of strikes where 3 or 4 seeds were released

†Number of strikes where no seeds were released

NS-Not significant
Operator 1 = Peter

Operator 2 = Sulu

**September 23, 2012**

Table3. Analysis of variance and means for double, triple and total number of seeds as influenced by operator. Seeds were large round. Values are the averages from 200 planter strikes for **light spring** type.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Source of variation | df | Singles¶ | Doubles¶¶ | Triples¶¶¶ | Blanks† |
|  |  | Sig. level |
| Operator | 1 | 0.0014\*\* | 0.001\*\*\* | 0.3888 ns | 0.3151ns |
|  |  | Operator means |
| Operator 1 |  | 7.90AB | 1.30AB | 0.10A | 0.70A |
| Operator 2 |  | 6.15AB | 3.25AB | 0.20A | 0.40A |

Treatment means with the same letter are not statistically different

\*,\*\*, \*\*\* significant at the 0.1, 0.05, and 0.01 probability levels, respectively

¶Number of strikes where 1 seeds were released

¶¶Number of strikes where 2 seeds were released

¶¶¶ Number of strikes where 3 or 4 seeds were released

†Number of strikes where no seeds were released

NS-Not significant
Operator 1 = Peter

Operator 2 = Sulu

Observations:

Friction was experienced in each strike. This was fixed by rolling one of the knots attached to the pointer (part that strike the ground) to the same level as other.

Readings were taken before (Sept.21) and after (Sept.23) the friction problem was fixed.

The readings were better for the light springs than the hard ones. The readings for large round seed were better after the friction adjustments.

Need to try different drums.