**Results**

Table 1. Analysis of variance and means for blanks, singles and doubles as influenced by operator. Average values are converted into percentages.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Source of variation | df | Misses† | Multiples± | Singles¶ |
|  |  | Sig. level |
| Operator | 1 | 0.1539NS | <.0001\*\*\* | <.0001\*\*\* |
|  |  | Means for Operator |
| Peter |  | 4 | 47 | 49 |
| Rajen |  | 6 | 32 | 62 |

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

† Number of strikes where no seeds were released

±Number of strikes where 2 seeds were released

¶ Number of strikes where only one seed was released

Table 2. Analysis of variance and means for blanks, singles and doubles as influenced by operator. Average values are converted into percentages.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Source of variation | df | Misses† | Multiples± | Singles¶ |
|  |  | Sig. level |
| Methods | 1 | 0.8732NS | <.0001\*\*\* | <0.0213\*\* |
|  |  | Means for Methods |
| Slow |  | 5 | 35 | 60 |
| Fast |  | 5 | 44 | 51 |

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

† Number of strikes where no seeds were released

±Number of strikes where 2 seeds were released

¶ Number of strikes where only one seed was released

Note: The “slow” method employed a pause at the bottom (0.5 seconds) and the fast method employed no pause.

Table 3. Analysis of variance and means for blanks, singles and doubles as influenced by operator. Average values are converted into percentages.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Source of variation | df | Misses† | Multiples± | Singles¶ |
|  |  | Sig. level |
| Planter | 1 | 0.2661NS | <.0001\*\*\* | <.0001\*\*\* |
|  |  | Means for Methods |
| New (HR) |  | 5 | 31 | 64 |
| Old (LR) |  | 6 | 47 | 47 |

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

† Number of strikes where no seeds were released

±Number of strikes where 2 seeds were released

¶ Number of strikes where only one seed was released

Note: HR means the planter with high rotation of drum and LR means the planter with less rotation of drum.

Table 4. Means for misses, singles and multiples (planters, methods and operators). The average values are converted into percentages.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Misses** |  | **Singles** |  | **Multiples** |  |
| **Planter** | **Method** | **Operator** | **Mean** | **Std Dev** | **Mean** | **Std Dev** | **Mean** | **Std Dev** |
| **HR** | **Fast** | **Peter** | 5 | 0.53 | 64 | 1.35 | 31 | 1.10 |
| **HR** | **Fast** | **Raj** | 5 | 0.71 | 76 | 1.65 | 20 | 1.52 |
| **HR** | **Slow** | **Peter** | 3 | 0.48 | 53 | 1.42 | 43 | 1.42 |
| **HR** | **Slow** | **Raj** | 5 | 0.53 | 62 | 1.03 | 33 | 1.42 |
| **LR** | **Fast** | **Peter** | 3 | 0.48 | 38 | 2.04 | 59 | 2.08 |
| **LR** | **Fast** | **Raj** | 9 | 0.74 | 61 | 2.64 | 30 | 2.40 |
| **LR** | **Slow** | **Peter** | 6 | 0.84 | 38 | 1.23 | 56 | 0.70 |
| **LR** | **Slow** | **Raj** | 7 | 1.06 | 50 | 1.76 | 43 | 1.77 |