**FHB Pre-Breeding/Germplasm Development Program Summary Form**

|  |  |
| --- | --- |
| **Name**: |  |
| **Institution**: |  |
| **Date:** |  |

**1.**  FHB-related Crosses[[1]](#footnote-1)\*

What % your program is dedicated to improving FHB resistance?

**2.** List the FHB resistant sources (individual lines used as parents or categories such as Chinese, European, Brazilian, native, etc.) used in your germplasm development program.

**3**. For each FHB nursery you participate in, please indicate the following: Location, total number of plots at the location, mist irrigated (yes/no), inoculation method (grain spawn, spray, none), and percentage of rows dedicated to YOUR germplasm development work (exclude mapping, commercial tests, uniform test, etc.).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Location** | **# of Plots** | **Irrigated?** | **Inoculation Method** | **Variety Development Rows (%)** |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

**4.** Number of lines tested in the greenhouse:

**5.** Are you using the USDA-ARS Genotyping Laboratories? If yes, indicate the number of lines to be tested in the year of the grant application.

Yes  No

If yes, number of lines in the year:

**6.**  Please list your most recent germplasm releases and indicate those with FHB resistance better than your Moderate Resistant check. You may add rows to the table if you have more releases. FHB Reaction (R – Resistant, MR – Moderately Resistant, MS – Moderately Susceptible, S – Susceptible, VS – Very Susceptible)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Year** | **Release method** | **FHB Reaction** | **FHB index (%)** | **DON (ppm)** |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

Please list how many breeders requested and received the germplasm from your program in the current period.

**7.** Please list any varieties or advanced experimental breeding lines (if known) containing germplasm developed by your program.

| **Genotype Name** | **FHB Reaction** | **Is this a released variety or experimental line?** | **Name of your germplasm line** | **Percentage of contribution (by pedigree)** | **FHB resistance allele(s) present** |
| --- | --- | --- | --- | --- | --- |
| Check: |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

**8.** List any challenges or concerns breeders have expressed as obstacles to incorporating your germplasm (yield, maturity, quality, etc.) and what you are doing to improve these areas.

**9.** How do you distribute new material to your cooperators, and what type of breeding material do you typically provide (original novel resistance lines, backcross lines in elite backgrounds, etc.)?

**10**. Which breeders do you cooperate with in order to choose what elite lines or varieties you will introduce new material into?

1. \* What constitutes a cross for FHB?

   1) at least one parent carrying a defined QTL;

   2) at least one parent having at least moderate FHB resistance; or

   3) in cases where 1) or 2) are not met, progeny undergo FHB evaluation such that lines with MS or worse reactions are not released. [↑](#footnote-ref-1)