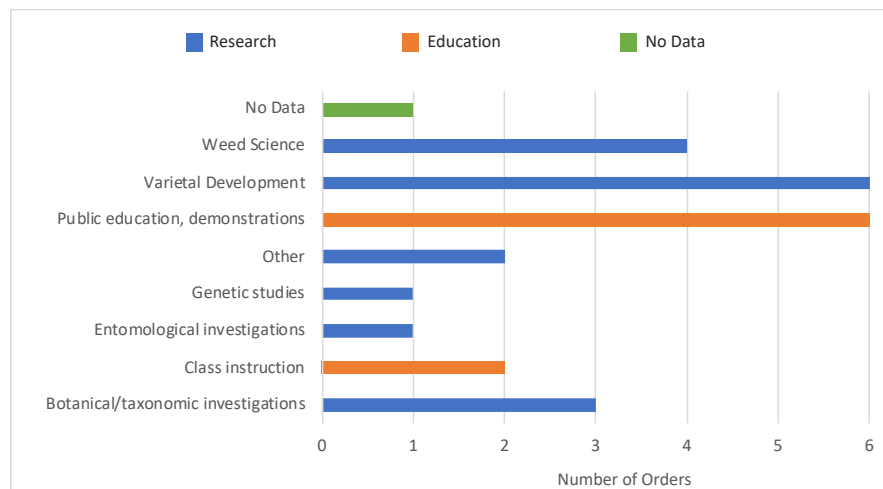


State of Wyoming Annual Report for Calendar Year 2019  
to the W-6 Technical Advisory Committee

Prepared by Lisa Taylor and Katie Aiello

**Summary:**

In 2019, 15 requestors from Wyoming received 207 accessions in 26 orders from the National Plant Germplasm System (NPGS). All orders were for fewer than 40 accessions and 19 were for 10 accessions or less. The majority of orders were placed for research purposes (65%) while the remaining were for educational (31%) or undisclosed purposes (4%). Research purposes included varietal development, genetic studies, and weed science or taxonomic investigations (Figure 1). Requestors received 36 different accessions in the form of seed, bulbs, and live plant material (Table 1).



**Figure 1.** Intended use of materials ordered by Wyoming requestors in 2019.

A request for feedback on the germplasm received was sent to the 14 recipients who provided a valid email address. Of these 14, two responded with information on the quality of materials received and how they were utilized (Appendix I). Both recipients reported the germplasm arrived in good condition. Only one recipient had germinated seed at the time of reporting. The recipient received 25 accessions of *Phaseolus vulgaris* which germinated with varying success. The material was used to introduce photoperiod-sensitive traits into day-neutral lines.

**Publications:**

Wyoming recipients reported the following publications that included NPGS material received in 2019:

1. Keith, J. and J. Heitholt. 2019. Potential of Seed Production of Photoperiod-Sensitive and Photoperiod-Insensitive Popping Bean Lines of *Phaseolus vulgaris* under Greenhouse Conditions during the Winter Months. Wyo. Agric. Exp. Stn. Field Days Bulletin. p. 11-12.

2. Keith, J. and J. Heitholt. 2019. The Effect of Two Nitrogen Sources (and Rates) on Seed Yield of Six Greenhouse-Grown Common Bean Genotypes that Express the 'Popping' Trait. Wyo. Agric. Exp. Stn. Field Day Bulletin. p. 13-14.
3. Keith, J., J. Heitholt, and A. Griebel. Wyoming-Grown Peruvian Popping Beans: Sensory Analysis and Consumer Acceptance. Bean Improv. Coop. Annu. Rep. 2020.

**Table 1.** Species received by Wyoming requestors in 2019.

<b>Taxon</b>	<b>Accessions Received</b>
<i>Abelmoschus esculentus</i>	4
<i>Allium ramosum</i>	1
<i>Allium sativum</i>	11
<i>Allium schoenoprasum</i>	6
<i>Allium spp.</i>	2
<i>Allium tuberosum</i>	2
<i>Amaranthus palmeri</i>	4
<i>Amaranthus retroflexus</i>	4
<i>Astragalus tibetanus</i>	1
<i>Bergera koenigii</i>	1
<i>Bromus tectorum</i>	16
<i>Capsicum annuum</i>	5
<i>Castilleja foliolosa</i>	1
<i>Chenopodium album</i>	4
<i>Eruca vesicaria</i> subsp. <i>sativa</i>	11
<i>Fragaria virginiana</i> subsp. <i>grayana</i>	1
<i>Fragaria x ananassa</i>	4
<i>Gaillardia pinnatifida</i>	1
<i>Luffa acutangula</i>	1
<i>Luffa aegyptiaca</i>	1
<i>Malus domestica</i>	15
<i>Malus hybr.</i>	10
<i>Malus sieversii</i>	11
<i>Miscanthus sinensis</i>	5
<i>Moringa oleifera</i>	1
<i>Nassella viridula</i>	1
<i>Phaseolus vulgaris</i>	25
<i>Pyrus communis</i>	1
<i>Pyrus communis</i> subsp. <i>pyraster</i>	1
<i>Pyrus hybr.</i>	2
<i>Rubus idaeus</i> subsp. <i>idaeus</i>	12
<i>Rubus idaeus</i> subsp. <i>strigosus</i>	1
<i>Solanum lycopersicum</i>	3
<i>Thlaspi arvense</i>	1
<i>Vaccinium corymbosum</i>	27
<i>Vaccinium hybr.</i>	10

## **Appendix I: Summary of Responses**

**Connett, John**, University of Wyoming; received one accession of *Astragalus tibetanus* to study insect attraction and drought hardiness. Material arrived in good condition but had not been planted at time of report.

**Heitholt, Jim**, University of Wyoming; received 25 accessions of *Phaseolus vulgaris* for a varietal development study. Material arrived in good condition. Some accessions did not germinate or had very poor germination. Material grew well. Material was useful for “introgressing traits of photoperiod-sensitive lines into day-neutral types.” Crosses were developed. No newly developed lines are currently available to the public. See “Publications” section for list of associated publications.