

2014 W6 Idaho State Report

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In 2014, 2,528 accessions representing 34 genera and 65 species were requested in Idaho from the National Plant Germplasm System. These numbers are similar to 2013 when 2,960 accessions were requested including 48 genera and 75 species. There were a total of 80 orders from Idaho in 2014, slightly higher than 67 orders placed in 2013 but similar to 83 orders in 2012. In 2014 orders were placed by 19 individuals, 33 orders from the public sector and 28 orders from commercial identities. Overall this represents a 19% increase in the total number of requests, compared to 2012, most of the increase due to individual requests. The total number of accessions requested in 2014, 2,528, was down a fourth year in the row compared to 2,960 in 2013, 4,221 in 2012 and 6,404 in 2011. The major user groups (assessed by the number of accessions requested) in 2014 were USDA scientists (primarily based in Aberdeen, Idaho) (79% of total accessions) and private companies (13% of total accessions), together accounting for ~92% of the total accessions requested. University requests were significantly down with only 38 accessions requested in 2014 compared to 516 accessions requested in 2013. ProVita, Inc. (nursery stock grower) stands out among private companies with 161 accessions requested, or 51% of the accessions requested by private companies. Interestingly, ProVita did not request any accessions in 2013. The top three genera requested in Idaho were *Triticum* (1,478) followed by *Hordeum* (430) and *Avena* (166).

University of Idaho research programs once again utilized NPGS germplasm.

Dr. Alex Karasev requested 1 *Phaseolis vulgaris* accession in 2014 for biological typing of Bean Common Mosaic Virus.

Dr. Nilsa Bosque-Perez's entomology program requested one *Hordeum vulgare* accession for barley yellow dwarf virus related research.

In *Beta vulgaris* research, 10 sugar beet accessions were requested in 2014 by the University of Idaho nematologist Dr. Saad Hafez for use as differential lines in evaluation for BCN resistance.

Lorie Ewing in the nuclear seed potato lab requested 9 *Solanum* accessions in 2014 for Irish Eyes Garden Seed, a private seed potato company in Washington state.

Germplasm user reports:

Beth Rasgorshek – Individual - Nampa, ID

1 *Allium cepa* var. *aggregatum*

I requested the *Allium cepa* for some open pollinated shallot trials I am conducting this season (2015). I believe the packet said there was 50 seeds, and I was able to germ and transplant 72% of that lot. The shallots will be grown on my farm, harvested, evaluated and then shared with several chefs for their cooking attributes. If they are found to be favorable then I will replant some of the bulbs and begin to increase seed production.

Lloyd Ward – Individual - Pocatello, ID

3 *Amelanchier alnifolia*
1 *Amelanchier hybr.*
2 *Corylus avellana*
2 *Juglans cinerea*
1 *Ribes rubrum*
3 *Ribes spicatum*
1 *Ribes uva-crispa*
1 *Sambucus nigra* subsp. *Canadensis*
9 *Vaccinium corymbosum*
3 *Vaccinium macrocarpon*

I received each of the listed varieties. They all came very well packaged and in good shape. I intend to use the plants for my own use and share with anyone who is interested in receiving a start.

Paul Brand – Farmer - Coeur d'Alene, ID

3 *Humulus lupulus* var. *lupulus*

I am a small farmer south of Coeur d'Alene in Kootenai County Idaho. I only have 14 acres, so I have been looking for a crop that grows well and does not need a lot of land.

This has led me to consider nut trees and hops.

I started a small hopyard last summer, but soon discovered that Kootenai County is on a plant quarantine for hops. This limited my search for cultivars that might do well here since I couldn't just order from mail order suppliers around the country. After much searching I was able to obtain some cascade hops plants from a local farmer near Rathdrum. This was the start of my hopyard.

Since I wanted to try some other varieties, I contacted the USDA National Germplasm System to explore propagating 3 different cultivars

PI 558681 - COR - *Humulus lupulus* var. *lupulus* – Cascade

PI 558693 - COR - *Humulus lupulus* var. *lupulus* – Chinook

PI 632858 - COR - *Humulus lupulus* var. *lupulus* – Newport

Since rhizomes were not available at that time of year, the Corvallis Center sent me 2 cuttings from each variety for me to root. My rooting efforts were unsuccessful except for one cascade plant. Unfortunately that plant did not overwinter to make a rhizome. I also purchased some cuttings of cascade from the Clean Plant Program at the Washington State University Extension at Prosser. Unfortunately, none of those plants overwintered either.

I was able to divide rhizomes from the cascade plants I purchased locally and grew and have those growing this year. I have also obtained cuttings from the USDA National Germplasm System for

an early maturing variety (PI 617360 - COR - Humulus Lupulus var. lupulus - NZ Hallertauer) which I hope will overwinter to produce rhizomes for replanting next spring.

I am also working on better rooting techniques using my existing cascade plants as cuttings donors.

The cuttings I have received from the National Germplasm System have all arrived in good condition and this year they look like they should do well. Since I am a novice at rooting plants, I think my lack of success last year was due to my own errors.

For an area like mine where local retail plant nurseries do not stock hops and the plant quarantine prevents me from mail ordering, my only sources of plant material are from the National Germplasm System, WSU extension (expensive), or finding other local growers (very few).

All of my dealings with the staff have been courteous and timely. Maintaining a healthy diverse stock of plant material and having it available to the public is a tremendous help. This is a program that needs to continue.

Dustin Batt – Brewer - Caldwell, ID

10 Humulus lupulus var. lupulus

5 Humulus lupulus var. neomexicanus

1 Humulus lupulus var. pubescens

I received the samples in good shape last spring. Thanks for your service. Unfortunately I have a lot to learn regarding soft cutting propagation. None of the samples survived in my environment. I will have to try again someday.

Kiernan McIlvoy – Private Company – Hailey, ID

1 Fragaria chiloensis

2 Fragaria chiloensis f. chiloensis

3 Fragaria chiloensis f. patagonica

1 Fragaria chiloensis subsp. lucida

1 Fragaria iturupensis

1 Fragaria nilgerrensis

1 Fragaria vesca f. semperflorens

1 Fragaria vesca subsp. vesca

6 Fragaria x ananassa

I have a small plant breeding and vegetable starts business called Crazy Guy Tomatoes. We breed high altitude, short season , crops for the home gardener, mostly here in the Wood River Valley.

The Fragaria (a mix of seed and in-vitro's) arrived in generally good condition (1 ascension had zero germination, 2 in vitro's died during the root-establishment phase). All were put out on beds covered with IRT 100 plastic mulch for soil temperature, moisture, and weed control. I'm still in the evaluation and multiplication phase with all of them, but hope after this year to have a through evaluation of all of them for inclusion in my breeding program.

Ben Yarschenko – Individual - Bonners Ferry, ID

11 *Avena sativa*
9 *Linum usitatissimum*
4 *Triticum aestivum* subsp. *aestivum*
17 *Triticum monococcum* subsp. *monococcum*
1 *Triticum turgidum* subsp. *dicoccon*
9 *Triticum turgidum* subsp. *durum*
2 *Triticum turgidum* subsp. *paleocolchicum*
6 *Triticum turgidum* subsp. *polonicum*
2 *Triticum turgidum* subsp. *turanicum*
1 *Triticum turgidum* subsp. *turgidum*

Thanks for the email, I am still working on the plots as we have had many types of grains, I would need one more season.

We have worked at this for 7 years and now have an heirloom grain flour mill.

It is hard work bringing commercial volumes back, but I believe your program is very valuable.

Publications: 2014 – 1 publication

Zhang, JL, Chen, JL, Bowman, BC, O'Brien, K, Marshall, JM, Bonman, JM. 2014. Association Mapping of Hagberg Falling Number in Hard White Spring Wheat. *Crop Science*. 54: 1243-1252.