In 2017, 3,024 accessions were requested in Idaho from the National Plant Germplasm System. The total number of accessions were down from 2016 and 2015 when 5,709 and 7,533 accessions were requested, respectively. A total of 83 orders were placed from Idaho in 2017, down from 107 orders in 2016, but similar to 73 orders in 2015. As observed in past years orders were fairly evenly divided among state, federal and private groups, 31, 20, and 32 orders, respectively. The major user groups (assessed by the number of accessions requested) in 2017 were USDA scientists (primarily based in Aberdeen, Idaho) accounting for 66% of total accessions, while state entities accounted for 25% of total accessions, together accounting for ~91% of the total accessions requested in Idaho. University researcher requests made up the vast majority of requests from state agencies. While the number of private orders placed in 2017, 32, were only slightly down from 35 placed in 2016, the total accessions requested dropped significantly with 276 accessions requested in 2017 compared to 703 accessions in 2016. The top two private requests were from companies, Crookham Company with 67 accessions and Mountain River Kirby, 52 accessions. A breakdown of accessions requested in 2017 by genus and species was not available.

**University of Idaho research programs utilized NPGS germplasm in 2017:**

Dr. Alex Karasev (Xue Feng) requested germplasm for virus propagation and identification.

Dr. Jianli Chen (Justin Wheeler) requested 33 accessions in 2017 for her wheat breeding program.

Dr. Louise-Marie Dandurand requested 16 accessions for evaluation as trap crops for *Globodera pallida* (pale cyst nematode).

Dr. Daolin Fu (Chaozhong Zhang) requested 558 accessions in 2017 for his wheat breeding program.

Dr. Mark Schwarzlander (Bradley Harmon) requested a diverse set of species in 2017 to evaluate efficacy of selected arthropods and pathogens to be used as biological controls.

Dr. Joseph Kuhl requested 2 *Solanum* accessions associated with research investigating resistance to *Globodera pallida* (pale cyst nematode).
Publications: 14


**Germplasm user reports for 2017 requests:**

**Max Delgado:**
Hello,

I received apple scion wood the last two years. I received scions from traditional cider apple varieties from Spain. I enjoy Spanish hard cider and am interested in propagating a few trees to someday make my own hard cider for home use. The scion wood I received last year was pretty good and I had some success with at least one of each variety that I requested. This year I received scions from all of the varieties that I requested except one. One of the varieties that I did receive was very woody and dry and I don't think I'll have any viable starts. All in all though, I have been happy with the opportunity to grow these otherwise inaccessible traditional varieties of apples.

Max A. Delgado

Meridian, Idaho

**Diana Rosslerova:**
Yes, I did receive NPGS seeds. Unfortunately, none of them germinated. I believe I received them in the spring or summer time of 2017 and since none germinated I do not have any results to report.

Sorry I cannot be more of help.
Thanks,
Diana Geiger
Dale Clark, Northern Seed, LLC:
Joseph,

I believe it was a couple of durum wheat lines. These lines are supposedly tolerant to the Cereal Cyst Nematode and I have use them as parent in crosses with Montana adapted germplasm. CCN problems are being identified more and more as people become aware of them (and they actually dig up the plants to look at the roots!) My hope is to have varieties developed with these parents in 8-10 years. We will also test the lines to confirm if they really are tolerant to the CCN.

Thanks,

Dale

Jerry Coon, Mountain River Kerby:
Germplasm received was great. I teach grafting and freely share the cultivars with other fruit enthusiasts. Great program. Awesome people.

Brent Towell, Middle Valley Permaculture:
Dr. Joseph,
I received seeds from NPGS. I have always had high germination rates with the seeds I have received, 90% and up. My tests have been around seeing which species can survive in my climate, what conditions they need, what growth habits they have, tuber formation and disease resistance. My long term goal is to have a perennial potato that can be used in a permaculture setting that can be planted on less productive areas of my property. The NPGS is invaluable, as it has many species that are commercially unavailable and difficult to find otherwise. Attached is a photo of S. jamesii that I have been growing. I have found that this species is more hardy than some of the documentation indicates, as the tubers survived a winter with temperatures dropping to -12 F.
Nicole Holten, The Dutch Table, LLC:
Professor Kuhl,

Thank you for your message. I received two Gieser Wildeman pear cuttings to graft onto my existing pear trees. My intention was to grow two branches with this heirloom Dutch stewing pear, as they’re impossible to get here, and catalog their growth and culinary uses for my work on mapping Dutch culinary traditions. Unfortunately, and I am very sorry and embarrassed to say, neither one took.

I am sure that it was my fault and in no way reflective of the quality of the cuttings: they looked healthy and fresh upon arrival and should have had no trouble adjusting. I must have done something wrong.

Best regards,

Nicole Holten
**Dustin Batt, Crookham Company:**
Hello Joseph,

We received a variety of new corn lines from the NPGS in 2017. The seed arrived in good order and well packaged. The primary purpose for this germplasm is to look for new novel traits to introgress into our sweet corn lines (e.g. earliness, yield, disease resistance, plant type, etc.). Because we work with sweet corn, we generally need to undergo at least one of generation backcrossing to our sweet corn parent lines before selecting viable new families. My experience has been that success rate is generally low due to poor regional adaptability of the requested lines. However, in those instances where we are able to create a viable family, there can be large increases in fresh green weight and seed yield. We have also found many novel sources of disease resistance which can then be used as donor parents for our elite sweet corn lines.

Hope this helps. If you need any further information let me know.
Best regards,
Dustin

**Brett Despain, ADM Seedwest Research:**
Joseph,
We use germplasm from NPGS in our breeding program.
The germplasm arrived in good condition and the seeds germinated without any issues.
Regards

**Paddy McIlvoy, Crazy Guy Tomatoes/Sun Valley Seeds**
Hi Joseph,
Sorry I'm down to the line in getting back to you. I did request corn germplasm from NPGS this year.
It arrived quickly and in excellent condition. I've had excellent (90+%%) germination from all lines.
They're being incorporated into an ongoing breeding program focused on cold-adapted multi-color (in the milk/fresh eating stage) sweet corn.
So far, they're at least 6 weeks from silking, and 4-6 more weeks from that before I have any real results, but I'd be happy to send you a second update when I reach that point.
Thanks!
Paddy McIlvoy