Patent-like claims on native potatoes spark protest by Peru’s indigenous farmers

Peruvian indigenous farmers have been angered by a government research agency that has claimed it owns intellectual property (IP) rights over more than fifty traditional varieties of potatoes bred in the Peruvian Andes.

The potatoes were bred not by government researchers but by indigenous farmers, who consider the claims to be an affront to their culture, knowledge and resources. In letters to the government, meetings, and a protest in the city of Cusco, the farmers have insisted that the claims be dropped entirely.

Observers have been surprised by the government’s attempt to expropriate the potatoes, in view of Peru’s relatively progressive legal protections for indigenous peoples’ rights. But the intellectual property (IP) claims come under a new plant breeder’s rights law, which may have tilted the legal environment against indigenous farmers by permitting others to claim farmers’ resources and innovations as their own.

In light of the claims and new law, Peru’s protections for indigenous farmers now appear to be insufficient to prevent misappropriation of indigenous agricultural diversity.

The National Agricultural Innovation Institute, known by its Spanish acronym INIA,1 is the agency seeking exclusive rights over the potatoes. Responding to critics, INIA argues that the IP claims are intended “to recognize that [the potatoes] are Peruvian”, and “to contribute to their legal protection.”

But it was Peru’s indigenous farmers, and not INIA, who bred the varieties, so it is unclear on what ethical and legal basis the Institute believes that it can claim intellectual property over them.

Rather than “protecting” native potatoes, indigenous farmers say that INIA’s IP claims are usurping them. The Institute has not directly responded to the farmers’ criticism that they, as creators and custodians of the native potatoes, are who rightfully should decide how the varieties are used.

1 Instituto Nacional de Innovación Agraria (INIA).
Indigenous farmers have met in the city of Cusco to assess INIA’s move and have resolved to oppose the claims until the government Institute drops all of them.

**Biopiracy and Plant Breeding Law**

INIA’s claims closely follow the adoption of a new plant breeder’s rights law in Peru. The law could grant INIA exclusive rights over the potato varieties for 20 years. The law implements the UPOV 1991 treaty, a controversial form of plant variety protection so stringent that it is often compared to utility patents. Peru’s ratification of UPOV 1991 was required by a free trade agreement with the United States that entered into force in 2009.

Among the law’s problems is that it has created a major conflict of interest. Under the law, INIA is both petitioner and judge of its own claims, as it is INIA that is charged with examining plant breeder’s rights applications to determine if they meet technical requirements. This allows INIA to legally judge the merits of its own assertions.²

Concerns have been raised inside and outside Peru’s government over INIA’s multiple roles, including consternation that the agency, suffering from budget cuts and frequent changes in leadership, has used the UPOV law so divisively. The Institute’s claims over native potato varieties appear *prima facie* improper, but it is INIA itself that is allowed to evaluate their merits.

Mariano Suta Apocusi, an indigenous potato farmer from Pampallackta (a community participating in the Potato Park) says that Peru shouldn’t mimic developed country IP systems, which tend to benefit big agroindustry.

“*Instead of patenting our potatoes, the government should shield our resources and knowledge from biopiracy,*” says Suta Apocusi, “*Peru should roll back Western intellectual property laws like UPOV, which don’t reflect the reality of our agriculture. By doing that, it will support indigenous peoples’ custodianship and development of our agricultural biodiversity, something that’s important for the whole world.*”

Indeed, INIA’s position contrasts with Peru’s international reputation for opposing patents on indigenous peoples’ resources and knowledge. Notably, Peru’s National Anti-Biopiracy Commission has successfully opposed a number of foreign patent claims on Peruvian genetic resources, including claims over crop plants.

The Anti-Biopiracy Commission, however, could be threatened by INIA. If the Institute maintains its course of action and obtains IP over native potatoes despite the protests of indigenous farmers, the Commission might come to appear hypocritical when it tries to oppose biopirates laying claim to indigenous resources.

Farmers say the Commission should help them oppose INIA. “*The Commission needs to demonstrate to indigenous farmers that it works against biopiracy by providing legal and technical assistance to communities to help them protect their rights and biocultural heritage,*” says Carlos Loret de Mola, former head of the National Environmental Council,³ “*Otherwise it would be perceived as perpetuating social marginalization and legal discrimination against indigenous peoples in favor of state institutions.*”

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² Certificates are ultimately issued by INDECOPI, the national intellectual property institute, but it is INIA that evaluates applications to determine if the meet “DUS” criteria (distinctiveness, uniformity, stability).

³ CONAM (Consejo Nacional del Ambiente), predecessor to the current Ministry of Environment.
Details of the applications

INIA submitted the plant breeder’s rights (PBR) claims in early 2013. On two days, 20 and 22 February, the Institute lodged 54 separate applications, each for an allegedly new potato variety (novelty is, theoretically, a requirement to obtain plant breeder’s rights).

But most, and possibly all, of the applications actually describe potato varieties that were created by Peru’s indigenous people, from whom they were collected, then studied and described years ago.

For instance, a purple variety named Leona is claimed. One breeder reacted to that claim saying “The breeding on that variety was done 500 years ago!”

According to data from Peru’s National Intellectual Property Institute (INDECOPI), INIA has recently - at least temporarily - dropped its claim to forty of the farmers’ varieties, allowing the applications to lapse. It is pressing ahead, however, with claims over more than a dozen others.

Observers familiar with the situation suggest that INIA may have dropped some of the claims because it did not adequately anticipate the need to produce living samples of the 40 varieties - and thus was forced to abandon the applications under its own rules. This possibility raises concern among indigenous farmers that the Institute may now plan to obtain the plants and renew its applications.

Of the fourteen potato varieties that are under active claim (see chart on page 6), Peru’s well-known Potato Park has at least eight in the inventory of its Local Collection, which is comprised of cultivars developed and propagated locally in the Cusco Region for centuries. A ninth is in the Park’s collection, but comes from a different region of Peru. The others may also be in the Potato Park collection, but under different names.

Thirteen of the fourteen can be identified in the collection of the International Potato Center (CIP) in Lima, the world’s principal international potato research institute and part of the Consultative Group on International Agricultural Research (CGIAR). According to CIP records the potato varieties entered its collection between 1970 and 1986, and were all collected in highland Peru.

One variety, “Luren”, appears in neither the Potato Park or CIP’s records, and may be a local name, or be the result of a name change.

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4 Applications were first submitted in Dec 2012, but were not processed due to technical faults. In February they were resubmitted. See the PBR applications at: http://aplicaciones.indecopi.gob.pe/portalISAE/Personas/tituloOIN.jsp
5 Nearly all of the varieties claimed can be identified as farmers’ varieties by matches with the collections of the Potato Park in Cusco and the International Potato Center (CIP) in Lima. A few varieties claimed by INIA, however, cannot be found in those databases. These few might have been bred by INIA, although in the broader context it appears more likely that these are renamed or alternatively named farmers’ varieties.
6 The breeder’s comment not only calls into question the legitimacy of INIA’s claim, but is a concrete demonstration of the remarkable role of indigenous farmers, who created and then preserved the variety over centuries, and who continue to grow it to this day.
7 Instituto Nacional de Defensa de la Competencia y de la Protección de la Propiedad Intelectual (INDECOPI)
8 Most of the varieties claimed by INIA are named in Quechua, a widely spoken language in the Peruvian highlands. There are multiple ways to render Quechuan words in Roman script, formal and informal. Some varieties have names in Spanish, or a hybrid of both languages. This results in confusing name variations.
9 Although these accessions can mostly be identified at Genesys (http://www.genesys-pgr.org), which recently replaced the arguably superior SINGER database, more detailed information is found CIP’s germplasm ordering system (http://research.cip.cgiar.org/smta/). Unfortunately, Genesys often lacks key passport data and the status of accessions under the ITPGRFA bilateral system contain data on SMTA transfers, formerly available through the SINGER system.
Peruvian Native Potato Varieties Claimed as INIA Intellectual Property

<table>
<thead>
<tr>
<th>Variety Name (as claimed)</th>
<th>Potato Park Local Collection?</th>
<th>CIP Accession Number</th>
<th>CIP Accession Date</th>
<th>Collection location (CIP accession)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soq’o waq’oto (“Pale cheeks”)</td>
<td>YES</td>
<td>703934</td>
<td>1975</td>
<td>Huitapujyo, Urubamba, Cusco</td>
</tr>
<tr>
<td>Ambar (Spanish, “Amber”)</td>
<td></td>
<td>703741</td>
<td>1973</td>
<td>Chancaza, Mariscal Luruziaga, Ancash</td>
</tr>
<tr>
<td>Luren</td>
<td>Not found</td>
<td>--</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>Waca Ñuñu (“Cow’s Udder”)</td>
<td></td>
<td>702453 (“Waca Ñuno”)</td>
<td>1972</td>
<td>Amaya, Chucuito, Puno</td>
</tr>
<tr>
<td>Llamasencca (“Llama’s nose”)</td>
<td>YES</td>
<td>706653 (“Llama Senccan”)</td>
<td>1986</td>
<td>Sipascancha Alta, Paucartambo, Cusco</td>
</tr>
<tr>
<td>Muru shoq’o (“Dappled grey hair”)</td>
<td>YES</td>
<td>707231</td>
<td>1974</td>
<td>San Pedro de Pillao, Daniel Carrón, Pasco</td>
</tr>
<tr>
<td>Yana pumamaki (“Black puma’s paw”)</td>
<td>YES</td>
<td>702477</td>
<td>1972</td>
<td>Tambillo, Jauja, Junin</td>
</tr>
<tr>
<td>Leona (Spanish, “Lioness”)</td>
<td>See note</td>
<td>See note</td>
<td>--</td>
<td>Unknown</td>
</tr>
<tr>
<td>Javilla</td>
<td></td>
<td>704577</td>
<td>1975</td>
<td>Sayacmachay, Chincheros, Apurimac</td>
</tr>
<tr>
<td>Puka sunqu (“Red daisy”)</td>
<td></td>
<td>706627 (“Puka sunchu”)</td>
<td>1986</td>
<td>Kimsa Allyu, Paucartambo, Cusco</td>
</tr>
<tr>
<td>Putis (“Gourd”)</td>
<td>YES</td>
<td>704283</td>
<td>1982</td>
<td>Lambras Patapallqa, Huancarama, Apurimac</td>
</tr>
<tr>
<td>Khuchi chuqchan (“Pig’s hair”)</td>
<td>YES</td>
<td>702007 (“Cuchi Chucchan”)</td>
<td>1970</td>
<td>Zurite, Anta, Cusco</td>
</tr>
<tr>
<td>Morada turuna</td>
<td>YES</td>
<td>703312</td>
<td>1974</td>
<td>Cuyocuyo, Sandia, Puno</td>
</tr>
</tbody>
</table>

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10 All are *Solanum tuberosum* ssp. andigena except Morada turuna, which is *S. stenotomom*.
11 The Potato Park Local Collection is composed of farmers’ varieties from the region surrounding Cusco. Indigenous communities in the area have developed these varieties and been custodians of them for centuries.
12 The CIP collection contains a number of potato accessions collected in the 1970s or earlier that are named “Leona” or some variant thereof, not all of which are from Peru. The INIA application likely covers a native Peruvian purple variety bred by indigenous people that is named Leona and is well known. It is part of the Potato Park collection, but is not considered local to the Cusco region.
Debate in Peru

INIA’s claims became public knowledge in July, when Manuel Ruiz, an intellectual property specialist at the Peruvian Society for Environmental Law (SPDA), revealed and criticized them in an interview and magazine article.13

Among his comments, Ruiz noted that INIA’s claims could be damaging to small farmers, and he asked if they would be forced to pay INIA a royalty in order to grow their own traditional potatoes - a question that might sound far-fetched, but is entirely possible if INIA is granted IP rights.

INIA’s reply was a confusing public statement that has left many important questions unanswered.14 The Institute acknowledged applying for IP rights under Peru’s new UPOV law for 103 varieties of several crop species. Of these varieties, INIA says that 54 were improved by its research.

This odd defense implies that INIA admits that 49 of the varieties it claims were not improved by INIA at all.

INIA’s statement then moves away from direct discussion of the plant breeder’s rights applications, without any substantive explanation of why the claims were filed or how INIA came to believe that it is the owner of the intellectual property.

The International Year of [Claiming Indigenous] Quinoa?

The UN General Assembly has declared 2013 the International Year of Quinoa. Like potatoes, quinoa is an important Andean crop that indigenous farmers develop and protect.

INIA’s recent IP claims aren’t only on potatoes. Among other crops, INIA has also claimed several varieties of quinoa. One of these, named Amarilla Sacaca, appears to be a farmers’ variety collected from an indigenous community that hasn’t been bred by INIA at all.

“Amarilla” means yellow, and Sacaca is the name of a farming town in the Cusco region which is also one the eight communities participating in The Potato Park. According to INIA’s own pamphlet on the variety:

“Quinoa INIA 427 - Amarilla Sacaca, corresponds to the [seed] collection SP-AM-SACACA, from the community of Sacaca, Pisac, Calca, Cusco, which demonstrated competitive advantages in the process of evaluating and selecting collections from the Cusco and Apurimac Region.”

On the basis of its description of the variety, INIA appears to have done nothing more than collect the seed from indigenous farmers, grow it, and see that it has superior qualities. While evaluating seeds is certainly a legitimate part of INIA’s job, the work of observation does not convert a resource developed by Cusco’s indigenous farmers into INIA intellectual property.

While the General Assembly intended to celebrate Andean indigenous farmers by declaring 2013 the International Year of Quinoa, INIA’s intent with Amarilla Sacaca seems to be much less friendly!


INIA goes on to note that in 2008 it inscribed 49 native potato varieties into a national commercial cultivar registry. INIA says that this was a “contribution to their legal protection ... that does not imply, in any case, a lack of recognition of the valiant labor of conservationist farmers and their ancestral knowledge.”

According to INIA, inscribing the potatoes in the registry “guarantees that they are freely available to the country’s farmers”, an assertion that it does not reconcile with its more recent IP claims, which would grant INIA exclusive rights.

Whether or not INIA was correct to put the potatoes in the commercial registry, its statement raises more questions than it answers. Among them:

What is the intellectual contribution of INIA to the varieties it claims?

Does INIA plan to impose restrictions on the use of these varieties if it obtains UPOV protection?

If not economic, what function would obtaining PBR on the varieties serve?

How does INIA explain filing for IP on 49 varieties that it seems to admit that it did not breed?

Of the native crop varieties that INIA says it did breed, how much INIA effort was involved, and why do these varieties generally bear the same name as older indigenous farmers’ varieties?

What sources did INIA rely upon to conclude that any of these varieties were eligible for IP protection at all?

What consultation and consent process, if any, did INIA enter into with indigenous people before asserting intellectual ownership of the potatoes?

### Conclusion

On 3 September, indigenous peoples’ and farmers’ federations from the Cusco Region gathered to analyze and debate INIA’s claims on native crop species. The Potato Park Association and Asociación ANDES convened the workshop.

Participants spoke passionately about standing up to INIA and stressed their concerns about the potential impacts of the INIA claims on food security and income for Peruvian farmers. People spoke of the central role of potato in their world vision and the lives of communities, and underlined the role of women as the true innovators of the Andean crop.

For Lino Mamani, the local curator of the Potato Park collection, the potato embodies the very roots of existence of Andean indigenous peoples’ and is one of most precious expressions of indigenous biocultural heritage. Says Mamani:

“For a national Institution to try to claim as their invention native potatoes, which have been developed and preserved by indigenous farmers for centuries, is just ridiculous, immoral and violates the basic rights of all Andean indigenous groups and the rights of Pacha Mama” (Mother Earth).

Anxious to challenge INIA, participants formed a Crisis Commission, which includes members of the various participating communities. The group was tasked with challenging the INIA claims.

To ensure that the issue is high on the national agenda, participants will be sending letters to INIA seeking clarification and a direct meeting with the Institute’s leadership. Also, letters
denouncing the claims as an act of biopiracy will be sent to the National Ombudsman, the Peruvian Congress, INDECOPI, the National Human Rights Commission, and other relevant authorities.

The workshop recognized that the struggle for potatoes is closely connected to maintaining rights over the traditional seed systems on which farmers’ entire way of life depends.

“This threat we are facing is very clear, and we must develop a plan of action to address it as well as protect all our seeds as a collective heritage” said Ricardo Pacco, a local leader from The Potato Park. “No indigenous people, whether of individuals or communities, nor a researcher or the government, can have ownership of our seeds and crops. These are the property of the people, and each generation has an obligation to safeguard this biocultural heritage for the next”.

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