



Journal of Politics in Latin America

Filomeno, Felipe Amin (2013), How Argentine Farmers Overpowered Monsanto: The Mobilization of Knowledge-users and Intellectual Property Regimes, in: *Journal of Politics in Latin America*, 5, 3, 35–71.
ISSN: 1868-4890 (online), ISSN: 1866-802X (print)

The online version of this article can be found at: <www.jpla.org>

Published by
GIGA German Institute of Global and Area Studies, Institute of Latin American Studies and Hamburg University Press.

The *Journal of Politics in Latin America* is an Open Access publication. It may be read, copied and distributed free of charge according to the conditions of the Creative Commons Attribution-No Derivative Works 3.0 License.

To subscribe to the print edition: <ilas@giga-hamburg.de>
For an e-mail alert please register at: <www.jpla.org>

The *Journal of Politics in Latin America* is part of the GIGA Journal Family which includes: Africa Spectrum ● Journal of Current Chinese Affairs ● Journal of Current Southeast Asian Affairs ● Journal of Politics in Latin America ● <www.giga-journal-family.org>



How Argentine Farmers Overpowered Monsanto: The Mobilization of Knowledge-users and Intellectual Property Regimes

Felipe Amin Filomeno

Abstract: Since the 1980s, governments and transnational corporations from core countries led by the United States have driven a global upward ratchet of intellectual property protection. In agriculture, this has meant strengthening the rights of seed companies over the plant varieties they develop and curtailing the rights of farmers over the seeds they cultivate. Exceptionally, from the 1990s to 2013, Argentine soy growers overcame the pressures from the seed industry, guaranteeing the right to freely save seeds of proprietary varieties from their own harvests for future cultivation. Based on a comparative historical analysis of conflicts over intellectual property on seeds in Argentina, Brazil, and Paraguay from the 1990s to 2013, this study suggests that a successful mobilization of knowledge-users in struggles over intellectual property depends on (1) the organizational stability of their political representation, (2) the coordination between the organizations that represent them, (3) the existence of independent channels for the representation of knowledge-users most sensitive to royalty payments, and (4) their ability to produce a public discourse capable of drawing support from a broad coalition.

■ Manuscript received 22 November 2012; accepted 20 October 2013

Keywords: Argentina, Brazil, Paraguay, Monsanto, intellectual property, patents, mobilization, soybean agriculture

Asst.-Prof. Dr. Felipe Amin Filomeno is an assistant professor of International Relations at the Federal University of Santa Catarina (UFSC), Brazil. Ph.D. in Sociology (Johns Hopkins University, 2012). His research focuses on Comparative and International Political Economy, World-Systems Analysis, and Latin American Studies. His current research aims at developing a world-historical theory of intellectual property in capitalism and applying it to the international intellectual property regime to understand the implications of the rise of the Global South.

E-mail: <felipe.filomeno@ufsc.br>

1 Introduction

Since the early 1980s, governments and transnational corporations from core countries led by the United States have driven a global upward ratchet of intellectual property (IP) protection (Chang 2001; Drahos 2002). In agriculture, this has meant strengthening the rights of seed companies over the plant varieties they develop and curtailing the rights of farmers over the seeds they cultivate. During this period, two international treaties have raised minimum standards for the protection of IP in agricultural biotechnology: the 1991 Act of the UPOV Convention (i.e., the International Union for the Protection of New Varieties of Plants; UPOV 1991) and the World Trade Organization's 1994 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).

UPOV was created in 1961 to provide an effective system of plant variety protection based on plant breeders' rights. Its convention was amended in 1972, 1978, and 1991. Among other changes, the act of 1991 extended the minimal protection period for most species from 15 to 20 years and made the protection of farmers' right to save seeds from their own fields for future cultivation optional for states. For rural communities, saving seeds is a millenary tradition whose legitimacy derives from the fact that rural producers have contributed to the creation, conservation, and improvement of genetic resources in agriculture for centuries. For seed companies, however, the practice of saving seeds is a "residue" of older forms of agriculture; it also limits corporate profits, because farmers who save seeds are less dependent on seed companies and may even act as their competitors when they exchange or sell saved seeds. TRIPS, in turn, states in article 27 that member governments may exclude the following from patentability:

plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, Members shall provide for the protection of plant varieties either by patents or by an effective *sui generis* system or by any combination thereof.

The strengthening of private IP in agriculture is associated with a major transformation in the development and distribution of agricultural technology that also started in the 1980s. Private corporations replaced the public sector as the leading actor in agricultural technology, which became largely conditioned by the quest for profit and market share. "The trend [has been] to privatize the means and sources of knowledge production and to deploy strategies to enclose knowledge commons through intellectual property right regimes" (Parayil 2003: 974). Transnational seed companies have pressured states to design and enforce IP regimes that allow them to maximize the

appropriation of economic returns from their R&D investments. The main focus of their pressure has been the right of rural producers to save seeds. If this right is suppressed, rural producers will have to buy new seeds on the market every year, for which they will have to pay royalties (usually included in the price of each bag of seed).

In the 1980s, Monsanto – a transnational corporation based in St. Louis, Missouri – was among the first to genetically modify a plant cell and to conduct trials with genetically modified (GM) crops. Among its chief products are the herbicide Roundup® – based on glyphosate – and Roundup Ready® (RR) soybeans – a GM variety of soybeans resistant to glyphosate. RR soybeans are advantageous for rural producers not because of superior yields per cultivated area, but because glyphosate is less expensive, less toxic, and easier to apply than herbicides used on conventional soybeans. The easier management of RR soybeans also favors the use of non-tillage sowing methods, which are more efficient and cause less erosion to the soil. Since RR soybeans started to be cultivated on a large scale in the United States, Argentina, and other countries in the 1990s, Monsanto has tried to obtain recognition and protection for IP rights on the RR technology around the world. Being an autogamous plant, soy can reproduce through self-fertilization, and its seeds retain their agronomic qualities from one generation to another. This allows rural producers to save soybean seeds for future cultivation, including those of RR varieties, which turns the right to save seeds into a problem for Monsanto.

In Argentina, the corporation has unsuccessfully tried to obtain recognition for the IP rights it claims to have over RR soybeans. Not only does Argentine legislation allow rural producers to save seeds from their own fields for future cultivation without consent from or payment to seed companies, but the Argentine Supreme Court denied Monsanto a patent on RR soybeans in 2000, arguing that the technology no longer matched the requisite of novelty when the corporation filed its application for a patent. This severely reduced Monsanto's capacity to appropriate part of the economic gains generated by the RR technology, prompting the company to retaliate by suspending its R&D activities in Argentina and filing a lawsuit against exporters of Argentine soybean products in Europe. In the meantime, Monsanto and other seed companies operating in Argentina had also proposed changes to national legislation on IP, demanding restrictions on the right to save seeds. To date (as of September 2013), all these attempts have been unsuccessful, with the core of Argentine legislation on IP on plant varieties remaining the same since the 1970s.

The case of Argentina stands in sharp contrast to that of the United States, where Monsanto has used private contracts, lawsuits, and inspecting

activities to suppress the right of farmers to save seeds. It also differs from the reality of Brazil and Paraguay, where the corporation implemented a private mechanism of royalty collection for RR soybeans that virtually eliminated the right of rural producers to freely save seeds. More broadly, the case of Argentina defies the global upward ratchet of IP protection initiated by the U.S. government around 1980. How can this cross-national variation be explained?

2 Theory and Method

In this article¹, I put forward an explanation of cross-national variation in IP regimes on seeds in Argentina, Brazil, and Paraguay since the 1990s based on differences in the mobilization of rural producers as knowledge-users in IP conflicts. To a certain extent, the exceptional nature of the Argentine case can be explained by the existence of a law to protect IP rights on plant varieties in the country that was passed in the 1970s, which might have set path dependency forces in motion. Institutions can create powerful vested interests that tend to stabilize and perpetuate the social order prevailing at their origin. The Argentine Law of Seeds and Phytogenic Creations enacted in 1973 established a corporatist committee to advise the Ministry of Agriculture in the making of rules for the seed market. Associations of rural producers have been members of this committee since then, accumulating knowledge about technical and political aspects of IP that have been helpful in their struggle against pressure from the seed industry for stronger IP. In addition, because the 1973 law provides weak protection to private IP on plant varieties, royalties on soybean seeds tend to be lower in Argentina, which has fostered the large expansion of soybean agriculture in the country over the past three decades. This has increased the size of the domestic constituency that benefits from weak protection of IP and is therefore interested in preserving the original law. Path dependency in social institutions does not operate mechanically and indefinitely, however. Elsewhere, I have shown how variations in state capacity and in patterns of rule-making are behind the stability of the Argentine IP regime on seeds (Filomeno 2013; Filomeno forthcoming). Here, I extend this explanation by adding a new variable – the mobilization of knowledge-users – which, as I will demonstrate, carries significant explanatory power.

1 This article is based on research supported by the Fulbright Commission, the CAPES Foundation of the Brazilian Ministry of Education, and the Program of Latin American Studies at the Johns Hopkins University

My argument is based on the literature on interest groups, contentious politics, and social movements, especially as it has been applied to the study of IP politics. The literature on the politics of IP is still an incipient body of scholarship:

most [of the studies on IP] focus on national and international IP *laws*. But while laws are the solidified results of social struggles and political conflicts, understanding the law itself tells us little about the social processes that lay behind laws and even less about *the social dynamics that will eventually challenge and often change them* (Shadlen and Haunss 2009: 2; emphasis added).

My focus on the mobilization of rural producers as an aspect of the “social dynamics” that can explain institutional change in IP follows the insights of Herring (2007). In a study about the spread of GM crops in Brazil and India, Herring showed that farmers were not simply passive and subordinate adopters of biotechnology developed by transnational corporations. By saving, exchanging, and crossbreeding GM seeds, farmers harnessed biotechnology to their benefit while undermining the capability of biosafety and bioproperty regimes (Herring 2007). In the present article, I do not concentrate on the “stealth” practices through which farmers bypass IP rules, but on their explicit political mobilization in conflicts about those rules. My starting points were the hypotheses offered by Sell and Prakash (2004), Halbert (2006), Haunss and Kohlmorgen (2010), and Sell (2013) regarding the mobilization of knowledge-users in struggles over IP rights.

Sell and Prakash (2004) compared the international conflict over IP on anti-HIV drugs with the negotiation of TRIPS to determine how the winning sides of each dispute were able to shape the international IP regime in their favor. They concluded that this involved the ability to (1) identify or manufacture a policy crisis – an event that can potentially disturb regular patterns of policy debate and policy-making by forcing attention to be focused on new problems or new dimensions of existing issues – as an opportunity for interest groups to alter their relative power positions and influence policy outcomes; (2) articulate information and a norm frame to interpret the problem in accordance with the perspective of the interest group; (3) mobilize a transnational network of actors with congruent goals; and (4) disseminate the norm framework to key players and create a link between the group’s position and the public interest so as to get widespread support (“issue-linking”) (Sell and Prakash 2004).

In a study about how a “transnational coalition of Internet users was able to kill two US anti-piracy bills” in 2012, Sell (2013: 67) restated the importance of creating a norm frame to interpret the policy problem in ways that link the interests of the group to a broader network of actors. Accord-

ing to her, by framing the anti-piracy bills as censorship and as a threat to the First Amendment, Internet activists “united a broad, diverse, and deep pool of activists in a common cause and spurred mass mobilization” (Sell 2013: 68). Sell also asserted that the capacity of the network of activists to scale up horizontally (by enrolling new members) and to shift scales vertically (from the domestic to the international level) was crucial for their success (Sell 2013: 81).

The role of framing in the politics of IP was also emphasized by Halbert (2006). In a book about the resistance against IP maximalism in the fields of software, music, pharmaceuticals, genetics, and traditional knowledge, Halbert showed that

the struggle between those forces seeking to increase intellectual property protection and those seeking to resist this expansion [...] is ultimately a narrative one where the struggle is to define meaning and control the discourse (2006: 8).

A successful narrative of resistance is one that would shift the discourse towards the public interest (Halbert 2006: 9). Another “lesson that can be gleaned from these different resistances is that [...] they] are focused and direct, but also long term. In many cases, the resistance that is necessary is ongoing and has taken decades to create any benefits” (Halbert 2006: 166).

Based on an analysis of conflicts over the European Union’s directives on software patents and on IP enforcement, Haunss and Kohlmorgen (2010) identified characteristics of networks of collective action that affect their capacity to change IP regimes: (1) the density of cooperative links existent between actors in the network; (2) the duration of cooperation within the network; and (3) the size of the network. The denser, the longer, and the broader the cooperation is, the more powerful the network will be. However, a big network might also be less flexible and therefore less effective (Haunss and Kohlmorgen 2010: 247).

Through a comparative historical analysis of conflicts over IP on seeds in Argentina, Brazil, and Paraguay from the 1990s to the present, I synthesized hypotheses offered by Sell and Prakash (2004), Halbert (2006), Haunss and Kohlmorgen (2010), and Sell (2013) to explain why Argentine soy growers were more successful than their Brazilian and Paraguayan counterparts in resisting the global upward ratchet of IP protection. I argue that their success derived from the following points: (1) the organizational stability of their political representation, (2) the degree of coordination between the organizations that represent them, (3) the existence of independent channels for the representation of knowledge-users most sensitive to IP issues, (4) their ability to produce a public discourse capable of drawing support from a broad coalition. Organizational stability in political representa-

tion contributes to the persistence, duration, and density of cooperative links among knowledge-users involved in mobilization (conditions emphasized by Halbert 2006; Haunss and Kohlmorgen 2010). The degree of coordination refers to the capacity of knowledge-users to unite for a common cause and to scale up their mobilization without losing any effectiveness (aspects highlighted by Sell 2013 and Haunss and Kohlmorgen 2010). The ability to produce a public discourse capable of drawing support from a broad coalition refers to the role of “framing” in the mobilization of knowledge-users (as argued by Sell and Prakash 2004; Halbert 2006; Sell 2013). Lastly, the existence of independent channels for the representation of knowledge-users most sensitive to IP issues – small rural producers in the case of soybean agriculture – is an aspect of IP struggles that I added to the explanation. As Sell has pointed out (2013: 68), coalitions of knowledge-users can have a very diverse membership. Some members might be more sensitive to IP than others because of normative issues (when privatization of knowledge goes against their beliefs and values) or because of instrumental reasons (when privatization of knowledge makes a strategic knowledge-good no longer affordable). If this most sensitive segment of knowledge-users can manifest its demands independently, the mobilization of knowledge-users will tend to be more radical and effective.

The argument developed in this article constitutes a relational approach to the politics of IP that emphasizes relations over resources as conditions shaping the effectiveness of mobilization. As Haunss and Kohlmorgen have said,

The strength of interest group research is that it shows how the resourcefulness of an actor usually corresponds with its ability to have its interests heard [...] actors are classified as strong or weak mainly on the basis of their access to resources. We believe that this view is too static and ignores interactional variables such as the structure of interactional networks among actors, rather than the attributes of the actors themselves which might better explain success or failure (2010: 244–245).

Soybean agriculture has expanded dramatically in Argentina, Brazil, and Paraguay over the past three decades, becoming an important engine of economic growth and source of export revenues (Robinson 2008: 56). Soy growers are therefore endowed with significant resources to influence politics in all three countries. However, their ability to shape IP rules has varied sharply from one country to another. In this article, I contend that how soy growers interact discursively and organizationally among themselves and with other actors has been crucial for their success in the mobilization over IP.

The present study was based on data from semi-structured interviews, official documents, newspaper articles, and academic literature. I used the method that Charles Tilly called variation-finding comparison, whereby the researcher tries to establish “a principle of variation in the character or intensity of a phenomenon by examining systematic differences among instances,” which are usually traced back to characteristics “internal” to each case (Tilly 1984: 82). The selection of soybean agriculture as an industry to be analyzed is justified not only because soybeans are the most important crop in value in Argentina, Brazil, and Paraguay, but also because GM soybeans are the main transgenic crop in the world in terms of the size of the area cultivated (Clive 2011). Many of the conflicts over IP in agricultural biotechnology are conflicts over soybean seeds. Still, this case selection implies limits to generalizations that can be made from this study, an issue I will discuss in the conclusion.

The following section contains three narratives of the conflicts over IP on seeds in Argentina, Brazil, and Paraguay focusing on the role played by soy growers. At the end of the article, a conclusion summarizes the research findings.

3 Cross-national Variation in the Politics of Intellectual Property in South American Soybean Agriculture

3.1 Argentina

By 2013, the Argentine IP regime on seeds stood out on account of its virtual immunity to the post-1980 global upward ratchet of IP protection and to the attempts by Monsanto to establish a private IP regime in South American soybean agriculture. Argentina was the first country in the Southern Cone to have legislation for IP on plant varieties: the 1973 Law of Seeds and Phytogenic Creations. By contemporary standards, this legislation does not provide very strong protection for private IP rights on seeds. It balances the interests of seed companies, rural producers, and the state by instituting plant breeders’ rights, albeit with three exceptions: (1) the right of rural producers to save seeds; (2) the right of plant breeders to use existing protected varieties to develop new ones without obtaining consent from the original cultivar owner; and (3) the right of the state to declare the restricted public use of certain varieties in cases of national interest. The 1973 Law of Seeds was prepared by a corporatist committee with representatives from the public and private sectors, including associations of rural producers (Gutiérrez

1994: 12–14). However, it was only in the 1990s that strong activism emerged on their part in reaction to attempts to restrict the rights of rural producers as users of IP goods.

In 1991, the executive power issued Decree 2.183 establishing a new regulation for the 1973 Law of Seeds. At least in part, the decree was a response to pressure exerted by associations of seed companies on the Ministry of Agriculture (Domingo 2003). The regulation determined the creation of an agency for registration and enforcement of IP rights on cultivars and for control of the quality of seeds (later named INASE – the National Institute of Seeds). It also reaffirmed the right of rural producers to save seeds (article 44), but specified activities related to this right for which the rural producer would need to request consent from the owner of the cultivar (article 41). In 1992, Representative Marcelo Muniagurria reacted to these changes by presenting a project of declaration (*proyecto de declaración*) that demanded from the executive power an amendment to the 1973 Law of Seeds prohibiting the charge of royalties on saved seeds and the imposition of sanctions on rural producers that save seeds for their own use (Muniagurria 1992). Muniagurria was a representative of the province of Santa Fe (Argentina's leading soybean-producing area) and a leader of the Argentine Rural Confederations (Confederaciones Rurales Argentina, CRA), one of the country's most traditional associations of rural producers. Founded in 1942, CRA mostly represents the interests of medium and large rural producers from the interior of the country. The project presented by Muniagurria was approved by Congress in one of the first demonstrations of the capacity of rural producers to shape IP rules in Argentina.

In 1994, Argentina signed TRIPS and ratified the UPOV convention of 1978. In 1995, the Congress approved a new law of patents (Law of Patents of Invention and Utility Models) in response to TRIPS. The law is uncertain in its application to plant varieties (Gutiérrez and Penna 2004: 8), especially the GM. The fact that the law of patents (stating IP rights on genes and biotechnological processes) and the law of seeds (stating plant breeders' rights on plant varieties) apply to the same concrete object (the seed) implies inconsistencies that have prevented the effective application of double protection by both laws (Witthaus 2006).

In February 1996, INASE issued Resolution 35 specifying new regulations in addition to the 1973 Law of Seeds and to Decree 2.183 regarding the right to save seeds. One of the most questioned items of the resolution was a rule determining that rural producers would need authorization from the cultivar owner to store saved seeds outside of their properties (Herrero 2006: 191). If interpreted literally, this norm discriminates against small rural producers that do not have their own storage facilities. Rural producers'

associations took the measure as a response to demands from seed companies (Fridman 2001: 3). The Argentine Agrarian Federation (Federación Agraria Argentina, FAA) declared that the rule harmed small producers (FAA 2005: 181). Founded in 1912, FAA is a large association of small and medium-sized family producers in rural areas. The Intercooperative Agricultural Confederation (Confederación Intercooperativa de Agricultura y Pecuaria, CONINAGRO) affirmed that the rule was an arbitrary restriction on the right to save seeds (Fridman 2001: 3). CONINAGRO is a national organization created in 1956 by cooperatives of small and medium-sized rural producers. Under opposition from these organizations, the restrictions stated on Resolution 35 have not been enforced.

In 1996, the Secretariat of Agriculture, Livestock, Fishing, and Food (La Secretaría de Agricultura, Ganadería, Pesca y Alimentos de la Nación, SAGPyA) also authorized the commercial cultivation of RR soybeans through Resolution 167. RR soybeans spread quickly, and in a few years virtually all soybeans produced in Argentina contained the RR genetic technology. RR soybeans were originally marketed in Argentina by Nidera, a transnational seed company based in Rotterdam. In the late 1980s, Nidera acquired the firm Asgrow, to which Monsanto had licensed the RR gene. Nidera had the right to use Asgrow's germplasm and thus to develop seeds with the RR gene. Even after Monsanto bought Asgrow's seed business in the mid-1990s, a 1996 contract authorized Nidera to commercialize RR soybeans seeds, which were distributed to Argentine farmers without purchase contracts (Newell 2009: 44–45).

In July 1990, Monsanto had obtained a patent on “glyphosate-resistant plants” in the United States. The company applied for revalidation of this patent in Argentina in April 1995, either because it miscalculated the commercial results that RR soybeans would have in that country or because the company strategically decided not to apply for a patent earlier (Correa 2006: 1). At that point, the country's patent legislation was being modified because of TRIPS, which raised controversies about the revalidation of foreign patents. The Argentine government argued that Monsanto had missed the deadline established in national and international law to apply for a patent in that country (a one-year period following the first application filed in the world) (Nellen-Stucky and Meienberg 2006: 2). It was also argued that the RR gene had already been released in Argentina at that time and therefore no longer matched the requisite of novelty necessary for the granting of a patent (Newell 2009: 44–45). On 24 October 2000, the Argentine Supreme Court issued a ruling on the case of Unilever versus Argentina's National Institute of Industrial Property rejecting the revalidation of foreign patents.

One of those patents was Monsanto's U.S. patent on the RR gene (Correa 2010).

In July 2003, given the inefficacy of Resolution 35 and because authorities concluded that pirate seeds were being stored on farms and mixed with legally acquired seeds (Herrero 2006), SAGPyA issued Resolution 52 determining that, if required by the agency, rural producers had to provide information about the amounts and varieties of seeds cultivated and furnish proof that the seeds had been legally acquired. Failure to do so would result in a fine and confiscation of illegal seeds. To FAA, the measure was a response to the interests of seed companies, and by taking this step, SAGPyA had mistakenly assumed that the right of rural producers to save seeds was the main cause of seed piracy (FAA 2005: 34–35). The organization argued that the high proportion of illegal seeds on the market was, among other things, a product of the state's absence “in the generation of technology in plant varieties, which left private companies, both national and foreign, as single actors in this strategic industry” (FAA 2005: 34–35, author's translation). In opposition to the privatization and oligopolization of the seed industry, FAA advocated “technological sovereignty”: “We speak of a technology that we can access without difficulty. For this reason, we continuously encourage INTA [the state's agricultural R&D agency] to seriously participate in the generation and transfer of technology” (FAA 2005: 226, author's translation). The “framing” of sovereignty would be recurrently used by FAA to raise awareness and draw public support for its resistance to stronger IP rights on seeds.

Around the same time, new controversies emerged over a private royalty collection system that had been created in 1999 by the Argentine Association for the Protection of Plant Varieties (ARPOV, a group of seed companies, Asociación Argentina De Protección De Las Obtenciones Vegetales) – the system of extended royalties (*regalías extendidas*). The system is based on private contracts between individual rural producers and seed companies in which the former agree to pay royalties on saved seeds. These contracts authorize ARPOV to visit farms to conduct inspections intended to prevent seed piracy (Brieva, Ceverio, and Iriarte 2008: 19). Monsanto participates in the system through licensees such as Nidera (Teubal 2008: 17). In the eyes of organizations of rural producers, the system has no legitimacy, because it is based on private contracts. FAA has provided legal assistance to rural producers addressed by ARPOV. The organization's directive on the issue was published in its own newspaper (*La Tierra*) and on its website (FAA 2005: 39–41). In October 2003, FAA's committee on seeds approved a document criticizing the influence of seed companies on the government and argued against the system of extended royalties (FAA 2005: 176). The

document was widely distributed among the local media. FAA's resistance was developing to involve the mobilization of the media, the articulation of a clearer discourse, and specialized assistance to rural producers in IP.

In December 2003, Senator Mírian Curletti presented a proposal (*proyecto de comunicación*) to Congress requesting opposition to the system of extended royalties from the executive branch (Curletti 2003). In the justification for the proposal, Curletti referred to a document signed by CONINAGRO, CRA, FAA, and the Argentine Rural Society (Sociedad Rural Argentina, SRA) opposing "intimidatory" inspections of farms carried out by seed companies. The document demonstrates the increasing coordination of those organizations in IP matters and, once more, their capacity to mobilize members of Parliament. As a result, the system has had limited coverage and efficacy.² Founded in 1866, SRA is an elite association of large landowners in the Pampas that also have interests in finance and trade.

At the end of 2003, SAGPyA presented a series of proposals for a new law of seeds for discussion by the relevant state authorities with the presence of rural producers' associations and the seed industry. The proposals restricted the right of rural producers to save seeds according to different criteria (Casella 2006). Around the same time, FAA started a collaborative project with a research group from the National Technological University of Reconquista to develop studies on the implications of agricultural biotechnology for rural producers (FAA 2005: 55, 62). According to FAA, there was almost daily interaction between members of the organization and academics at the university. FAA provided them with inside information about negotiations around the proposals for a new law of seeds. The organization regarded the collaboration as being of vital importance, enabling it to obtain a well-formulated analysis (FAA 2005: 62). FAA was improving its mobilization, this time to incorporate "organic intellectuals" to assist in negotiations with the state and in the articulation of a public discourse.

In March 2004, FAA published an article in its newspaper *La Tierra* stating that FAA, SRA, CRA, and CONINAGRO had agreed to fight together for the right to save seeds and to oppose the ARPOV lobby. As FAA stated, this position was relevant because it was expressed by "the totality of the corporate representation of the most important sector of the national economy," which "will have to be taken into account by the government because it comes from the sector that provided fiscal revenues of 9.2 billion ARS in the previous year just in the form of export taxes" (FAA 2005: 63, author's translation). This demonstrates the coordination of the associations

2 Interviews with FAA and CONINAGRO officials, Buenos Aires, August 2010.

of rural producers in IP politics and FAA's rhetorical use of the centrality of soybean agriculture to the economy and public finance.

In that same year, Monsanto announced its withdrawal from the soy business in Argentina in retaliation for the country's denial of a patent on the RR technology (Nellen-Stucky and Meienberg 2006: 3–4). In response to this step and given the lack of consensus around proposals for a new law of seeds (FAA 2005: 39–40), SAGPyA proposed the creation of a system of global royalties (*regalías globales*). In the new system, rural producers would be charged a fee based on the price of soybeans and wheat when they sold their harvests, which would be used to compensate seed companies for their IP rights. In the June 2004 edition of *La Tierra*, FAA stated that a “conclave” of agrarian leaders, rural producers, and state officials from the province of Córdoba had expressed its “homogeneous rejection” of the global royalties project (FAA 2005: 66). According to them, the proposal responded to the interests of seed industry multinationals and went against the “sovereignty of the rural producer” (FAA 2005: 66). The “conclave” had representatives from FAA, SRA, and CONINAGRO, who agreed to present a collective statement demanding the participation of representatives from the big soybean-producing provinces in discussions with the government (FAA 2005: 66). The meeting once again demonstrated the coordination of agrarian organizations in IP matters.

Early in the second half of 2004, Monsanto reacted by threatening Argentine soy growers and public authorities with legal action in countries importing soybean products from Argentina and where the corporation had had its patents recognized. FAA claimed Monsanto's goals were illegal and in violation of international treaties signed by Argentina (FAA 2005: 195–196). In a public statement dated 8 September 2004, FAA argued that Monsanto's threats were a matter of state, affecting strategic questions such as the country's food security and the inflow of foreign currency to Argentina (FAA 2005: 203–204). Once more, the centrality of soybean agriculture to the economy and national sovereignty were being used by rural producers to obtain public support in IP conflicts.

In December 2004, Monsanto sent a letter to 20,000 rural producers confirming its decision to implement a private system of royalty collection based on IP rights recognized in importing countries. In the proposed system, royalties would be charged over the value of the harvests the moment they were sold by rural producers to crushing industries or trading houses. The system would virtually eliminate the right of soy growers to freely save seeds and would solve the company's problems with soybean seed piracy. In response, SRA issued a public statement saying that royalties on seeds should only be charged when they were sold. The organization also pro-

posed that rural producers should have the right to cultivate stored seeds at no charge on ten percent of the total cultivated area, with a minimum non-chargeable base of ten tons of seeds encompassing all producers. Besides this, royalties should be charged for only six years for each new variety registered at INASE, and these should decline in value year by year (SRA 2004). Thus, even the most conservative of the Argentine agrarian organizations had a strong stance on IP matters.

On 23 December, FAA issued a press release, again accusing Monsanto of threatening national sovereignty and demanding action from Argentine diplomacy (FAA 2005: 222–224). CONINAGRO accused the corporation of trying to turn rural producers into vassals (*Clarín* 2004). SRA affirmed that Monsanto was trying to illegally appropriate around 100 million USD from rural producers (*Clarín* 2004). Reflecting this discontent, Senators Ricardo Taffarel, Juan Marino, and Ernesto Sanz presented a bill in 2005 restating the right of rural producers to save seeds and specifying that saved seeds may be stored in or outside the rural producer's own facilities and without restrictions that hinder the exercising of that right or make it more costly (Taffarel, Marino, and Sanz 2005). In their justification, they mentioned the works of Aldo Casella (FAA's IP collaborator from the University of Reconquista) and José Carlos Basaldúa (head of CRA's grain commission).

After making several threats, Monsanto finally filed lawsuits against European soy importers in the Netherlands and Denmark. In January 2006, the Argentine government asked European courts to be recognized as a third party in the lawsuits (Nellen-Stucky and Meienberg 2006: 4–5). European importers and the Argentine government then developed a common argument against Monsanto (Casella 2006: 7); they claimed the corporation could not demand compensation for the use of its RR technology by Argentine farmers in Europe because the RR gene, which makes soybean plants resistant to glyphosate, was not exercising its function in the soybean crush or oil being imported by European countries (Casella 2006: 8). According to the future Minister of Agriculture, Julián Domínguez, the dispute was not just a problem for rural producers, but an issue of national interest,³ which demonstrates that the framing developed by rural associations was resonating among state officials.

On 20 June 2006, SAGPyA issued a new norm restricting the right to save seeds. Resolution 338 determined that rural producers were allowed to save seeds only to the extent necessary to cultivate the area originally sown

3 Personal observation by the author, Buenos Aires, 11 August 2010, at the Jornada Biotecnología Agraria y Desarrollo Nacional.

with legally purchased seeds. FAA argued that the resolution favored seed companies and had questionable legitimacy by treating the right to save seeds as an “exception” (Casella 2006: 1; 5). On 22 June, SRA issued a public document rejecting the restriction on the right to save seeds and considering it a unilateral action by SAGPyA (SRA 2006). This resolution has not been enforced yet due to lack of regulation.⁴

In 2007, sentences favorable to the Argentine side of the dispute in Europe were dictated in Britain (in the case of *Monsanto vs. Cargill*) and in Spain (in the case of *Monsanto vs. Sesostris*) (Casella 2010a: 12). Lastly, in July 2010, the European Union Tribunal determined that the petition filed by Monsanto in the Netherlands was unjustifiable, thereby putting an end to the claims of the company overseas (Casella 2010b). Given the failed patent claim on RR soybeans, the limited operation of the system of extended royalties, and the rejection of the project for global royalties, Monsanto started to build a private IP regime specific to a second generation of GM varieties of soybeans in 2011. In a public statement issued on 26 April 2011, FAA stated that Monsanto was signing contracts with rural producers that wanted to have access to the new GM varieties. The contract established a private system for royalty collection that implies that rural producers would have to pay royalties on saved seeds. For FAA, this was a direct infringement of the law of seeds (FAA 2011). So far (as of September 2013), no consensus had been reached on the proposals for a new law of seeds, and no bill has been submitted to Parliament.

3.2 Brazil

The first laws about IP on plant varieties in Brazil were enacted in the mid-1990s. Since then, the Brazilian IP regime on seeds has changed consistently with the global upward ratchet of IP protection. Moreover, in the mid-2000s, Monsanto implemented a nationwide private mechanism of royalty collection for RR soybeans that virtually eliminated the right to freely save seeds for those growing RR varieties.

The first law with rules applying to IP in agriculture was the Law of Industrial Property, Brazil’s new law of patents enacted in 1996 in response to TRIPS. It allows patents on biotechnological processes that create GM seeds. In the following year, the Law of Protection of Cultivars established plant breeders’ rights in the country based on the UPOV act of 1978, which Brazil ratified in 1999. Like the Argentine Law of Seeds, it contemplates three exceptions to plant breeders’ rights: (1) the right of rural producers to

4 Interview with INASE, August 2010, Buenos Aires.

save seeds; (2) the right of plant breeders to use existing protected varieties to develop new ones without consent from the original cultivar owner; and (3) the right of the state to declare the restricted public use of certain varieties in cases of national interest. However, following the most restrictive UPOV convention of 1991, the Brazilian Law of Protection of Cultivars determines that if a new variety is distinguishable, but predominantly derived from an original protected variety, its commercialization by the plant breeder is conditional to authorization by the owner of the original cultivar.

When the Law of Industrial Property and the Law of Protection of Cultivars were being created in the early 1990s, the agrarian bourgeoisie was facing a crisis of political representation. In the last quarter of the twentieth century, traditional agrarian organizations had trouble coping with the emergence of new actors brought by the modernization of Brazilian agriculture and its integration into agro-industrial complexes (Bruno 1997: XI). Among these organizations was the National Agriculture and Livestock Confederation (Confederação da Agricultura e Pecuária do Brasil, CNA), the pinnacle organization of the Brazilian rural sector founded in 1964. The resulting crisis of representation was solved through a series of political alliances and conflicts led by the Organization of Brazilian Cooperatives (Organização das Cooperativas do Brasil, OCB) (Bruno 1997: 20–21). Founded in 1969, OCB represented large cooperatives of small rural producers from the south and southeast of Brazil. The organization searched for a more organic and stable relationship with agro-industrial sectors up- and downstream of the farming sector, a project that was successful in reestablishing solidarity among agrarian elites (Bruno 1997: 21; Mendonça 2005). To formalize this rearrangement, the board of directors at OCB proposed the creation of a new organization, the Brazilian Agribusiness Association (Associação Brasileira do Agronegócio, ABAG), which was founded in 1993 (Mendonça 2005: 18–19). In practice, this implied the hegemonization of the local agrarian bourgeoisie by big corporate agribusiness, which made it difficult for rural producers to articulate their IP demands nationally and independently against the interests of the seed industry.

From 1991 to 1997, the bill for the Law of Protection of Cultivars was discussed in committees under the executive power and in Congress (Araújo 2010: 65–66). In the debates, rural producers were represented by CNA, OCB, the Brazilian Rural Society (SRB), the National Confederation of Rural Workers (Confederação Nacional dos Trabalhadores na Agricultura, CONTAG), and the Movement of Rural Landless Workers (Movimento dos Sem Terra, MST) (Velho 1995: 243; Araújo 2010: 34–66). Family agriculture and rural workers continued to be mostly represented by CONTAG and MST. Founded in 1984 with the support of the Catholic Church, the MST is

an heir of social movements that had fought for agrarian reform since colonial times in Brazil. CONTAG was created in 1964 and is one of the largest trade unions of rural workers in the world. CONTAG and the MST were marginalized from the dominant political bloc and opposed legislation strengthening IP rights on seeds. By contrast, CNA and OCB declared their support of the bill.

CNA apparently abstained from seriously discussing the topic within the organization (Araújo 2010: 74). Because of the complexity of the topic or to avoid a position contrary to that of a government aligned with its own neoliberal discourse, CNA delegated the formulation of its position on IP to an internal organ linked to the interests of seed companies. Segments linked to rural producers of grains whose interests were contrary to those of seed companies apparently did not have a strong voice within the organization (Araújo 2010: 74). OCB was also somewhat divided in its position, because its membership includes rural producers of grains, but also cooperatives that conduct research on plant varieties. The clash between the two sides took place internally, but publicly the position in favor of the new law prevailed (Araújo 2010: 74). This indicates that because rural producers were represented by organizations that also incorporated sectors of agribusiness with contrasting interests, their capacity to influence IP rule-making was reduced and the new law was finally enacted in 1997. Unfortunately, I could not find any detailed account of the action taken by associations of rural producers about the Law of Industrial Property, except for the observation that large landowners opposed the original bill (Hermann 2004: 78–80). Since the law was approved, we can infer that their opposition was not persistent or effective.

A proposal to change the Law of Protection of Cultivars was already being formulated within the Ministry of Agriculture in 2002.⁵ In 2007, Rose de Freitas – a member of the Brazilian Chamber of Deputies – presented a different proposal (Freitas 2007). The following year, another member – Moacir Micheletto – presented his own bill (Micheletto 2008). What these all had in common was that they increased the scope and protection of IP rights on seeds and curtailed the rights of rural producers. In 2003, the state enacted the Law of Seeds and Seedlings, which mostly referred to technical regulation of the seed market, but also included a rule limiting the right to save seeds to the second generation of seeds purchased in the formal market.

5 Interview with the Coordination Office of the National Service for Protection of Cultivars – SNPC/Ministry of Agriculture, May 2011.

Discussions about the proposals to change the Law of Protection of Cultivars have taken place within the Ministry of Agriculture and in Parliament. In the ministry, they have been debated in different committees, especially the Committee of the Soybean Production Chain and the Committee of Agricultural Inputs. These are collegiate organs with representatives from the public and private sectors that assist in the formulation of agricultural policies. According to a source from the Association of Soy Growers of Mato Grosso (APROSOJA-MT), when the proposal was being discussed in the Committee of the Soybean Production Chain, representatives from the organization asserted that the bill had been unilaterally formulated to benefit seed companies.⁶ According to a leader of the Association of Soy Growers of Rio Grande do Sul (APROSOJA-RS), Monsanto has a strong lobby within the Ministry of Agriculture and has pressured for changes in the law.⁷ Despite their shared criticism of the bills, APROSOJA-RS and APROSOJA-MT do not have the same perspective on restrictions on the right to save seeds. Mato Grosso is the largest soybean-producing state in Brazil. Soybean plantations there are much larger in comparison to the medium and small holdings that characterize soybean agriculture in Rio Grande do Sul. Because of these differences in scale, soy growers from Mato Grosso are less sensitive to seed costs. In addition, according to sources from APROSOJA-MT, the practice of saving seeds is not as common in Mato Grosso as it is in Rio Grande do Sul.⁸ Hence, although APROSOJA-MT finds the bill proposed by the Ministry of Agriculture too restrictive, it would be willing to accept that only the first generation of seeds obtained from certified seeds can be saved or that the use of saved seeds be subject to royalty payments equivalent to a fraction of the royalties paid for original seeds.⁹ In contrast, APROSOJA-RS has a more radical position, with one of its leaders defending the breaking of Monsanto's patents by the state.¹⁰ This has diminished the likelihood of concerted action being taken by the two organizations on the national level.

In June 2008, a public hearing to discuss the bills of Congressmen Micheletto and Freitas was held at the Committee of Agriculture of the Chamber of Deputies. Among the participants were CONTAG, CNA, ASPTA¹¹, and the National Articulation of Agro-ecology (ANA, a network of NGOs and social movements that includes the MST, Articulação

6 Interview, June 2011.

7 Interview, May 2011.

8 Interview, June 2011.

9 Interview with APROSOJA-MT, June 2011.

10 Interview with APROSOJA-RS, May 2011.

11 An NGO linked to rural social movements, online: <www.aspta.org.br>.

Nacional de Agro-ecología) (Vilela 2009). CNA and soy growers manifested reservations about the proposals, while CONTAG and ANA expressed their direct opposition.¹² In February 2009, 21 organizations linked to the rural sector sent a joint letter to the Presidency stating their opposition to the proposals changing the Law of Protection of Cultivars (ANA et al. 2009). These included CONTAG and the MST, but none of the organizations that represent soy growers. In the interviews conducted for this study between May and June 2011, no evidence of collaboration was found between organizations representing family agriculture (CONTAG, MST, ASPTA, ANA) and those representing soy growers.

Parallel to these legislative discussions, a series of conflicts had emerged over Monsanto's attempts to charge royalties on RR soybeans. Ever since the late 1990s, RR soybean seeds had been smuggled from Argentina and cultivated illegally in southern Brazil. From 2003 to 2006, the commercialization of annual harvests containing RR soybeans was provisionally authorized by presidential decrees issued under strong pressure from soy growers and seed companies. Because of opposition from NGOs and rural social movements to GM crops, the definitive legalization of RR soybeans only occurred in 2005, with the approval of a new law on biosafety.

After the first presidential decree was issued in 2003, Monsanto sent a letter to Brazilian soy growers and international trading companies stating that selling RR soybeans without paying royalties in Brazil could result in confiscation of the product at foreign destinations as a result of legal measures taken by Monsanto (*IstoÉ Dinheiro* 2003). To avoid litigation, the company proposed a private mechanism of royalty collection in which soy growers would have royalties charged to trading houses and crushing industries over the value of the harvests the moment the soybeans were sold. Supporting Monsanto's actions were a bundle of patents on components of the RR technology that had been granted to the company in Brazil (the first patent was granted in August 1999 and the last one in April 2007) (Rodrigues 2009: 81–82).

In January 2004, Monsanto announced it had reached an agreement with soy growers from Rio Grande do Sul concerning the collection of royalties, promising to invest part of the resulting revenues in local research projects (*Folha On Line* 2004). However, it was only in April 2005 that the Federation of Agriculture in Rio Grande do Sul (Federação da Agricultura do Estado do Rio Grande do Sul, FARSUL) accepted an agreement with Monsanto according to which rural producers should immediately start paying royalties equivalent to one percent of the value received per each bag

12 Interview with ASPTA, May 2011.

of soybeans sold to crushing industries and trading companies (*Sul Rural* 2005). The agreement with FARSUL was not consensual among organizations of rural producers. According to APROSOJA-RS, soy growers did not consent to the implementation of Monsanto's system of royalty collection, which ended up being imposed unilaterally by the company.¹³ The understanding with FARSUL opened the way for the extension of the system to the entire country.

Since the implementation of the system, soy growers using RR seeds have had to make payments to seed companies twice. First, when they purchase the seeds, they pay a royalty implied in the price of each bag. This payment corresponds only to the cultivar in which the RR gene is inserted and not to the RR technology. As such, the payment is regulated by the Law of Protection of Cultivars and is not necessarily made to Monsanto, but possibly to local seed companies if they own the cultivar carrying the RR gene. Second, when rural producers sell the harvest that originated from the cultivation of those seeds, they pay royalties corresponding to RR technology. This payment, which can also be made in advance, is regulated by the Law of Industrial Property and is based on Monsanto's patents in Brazil. The soy grower can declare his/her harvests are free of RR soybeans, but if their presence is detected by tests applied during the harvest sale, a fine will be charged.

As early as January 2005, a cooperative of rural producers from Rio Grande do Sul obtained a provisional court ruling based on the Law of Protection of Cultivars that exempted its members from paying royalties on their RR harvests. According to the ruling, rural producers should pay royalties only on the purchase of seeds (*Consultor Jurídico* 2005). One month later, the sentence was overruled by a higher court (*Terra* 2005). In the first half of 2009, rural trade unions from Passo Fundo, Sertão, and Santiago in Rio Grande do Sul started another lawsuit against Monsanto questioning the validity of patents on RR soybeans and claiming the right to cultivate saved seeds without paying any royalties (*Valor Econômico* 2009). Their action was coordinated by APROSOJA-RS, which had just been created. Later, they were joined by rural trade unions from 349 other cities led by the Federation of Rural Workers of Rio Grande do Sul (Federação dos Trabalhadores da Agricultura do Rio Grande do Sul, FETAGRS).¹⁴

In 2009 again, Representative Nazareno Fonteles requested a public hearing at the Committee of Agriculture in the Chamber of Deputies to discuss these disputes. The meeting was held on 15 September that year

13 Interview with APROSOJA-RS, May 2011.

14 Interview with APROSOJA-RS, May 2011.

with the participation of representatives from Monsanto, the seed industry, the Ministry of Agriculture, APROSOJA-RS, APROSOJA-MT, and associations of soy growers from other states. The presentation given by APROSOJA-RS focused on the evolution of prices and production costs faced by soy growers, with a single sentence among the concluding remarks mentioning that the foreign control of technology threatened national sovereignty (Nardes 2009). As has been typical in the discourse conducted by organizations of Brazilian soy growers, the distributional implications of IP rights were emphasized while broader issues like national sovereignty appeared only as an afterthought. During his presentation at the hearings of the Committee of Agriculture in the Chamber of Deputies, the president of APROSOJA-RS also stated that the organization had tried to mobilize FARSUL and CNA in defense of their interests before taking judicial action against Monsanto. Neither these nor APROSOJA-MT had actually joined the organization in its judicial battle, however.¹⁵ In the words of leaders of FARSUL, the seed industry is the basis of the production chain, providing new materials with a “cost that should be paid for. It is the cost/benefit relationship that matters for the rural producer”¹⁶ (again, distributive issues come to the fore). In her speech at the hearing, the representative of the Ministry of Agriculture stated that the government had decided not to interfere in agreements that had been reached by private actors, since rural producers had agreed to pay for the use of the RR technology (something that, as mentioned before, is highly contested by organizations of rural producers) (Câmara dos Deputados 2009: 16–18).

The weaknesses stemming from these divisions seem to be recognized by some rural leaders. In the state of Minas Gerais, the president of the rural trade union of Unaí and largest soy grower in that state, Hélio Oscar Machado, stated that a stronger coordination of rural trade unions and federations of the rural sector was needed to respond to Monsanto’s pricing policy (*Hoje em Dia*, no date). If coordination between organizations of soy growers was weak and unable to reach a national scale, collaboration between them and NGOs or rural social movements that also contest private IP rights on seeds has been virtually absent.¹⁷ The nonexistence of a broad coalition of soy growers, NGOs, and rural social movements against Monsanto in Brazil (as well as in Argentina and Paraguay) derives from the fundamental opposition of NGOs and social movements to the use of GM seeds and to the capitalist nature of the soy agribusiness.

15 Interview with FARSUL, May 2011.

16 Interview, May 2011.

17 Interviews with APROSOJA-MT, APROSOJA-RS, and ASPTA, May–June 2011.

In April 2012, a first-level judicial ruling on the lawsuit started by soy growers led by APROSOJA-RS determined the suspension of royalty payments on RR soybeans. According to the ruling, following the UPOV convention of 1978, the only IP law that could regulate the relation between Monsanto and soy growers was the Law of Protection of Cultivars. Thus, Monsanto did not have the right to charge royalties on the total output sold by rural producers, and the latter had the right to cultivate saved seeds at no cost. Considering a technical examination ordered by the court, the judge also concluded that the patents on which Monsanto was basing its claims had expired in Brazil (Conti 2012).

Possibly motivated by this finding, the Federation of Agriculture and Livestock of the State of Mato Grosso (Federação da Agricultura e Pecuária de Mato Grosso, FAMATO) started a lawsuit against Monsanto in September 2012 based on another technical examination that concluded that Monsanto's patents on the RR technology had expired in 2010. APROSOJA-MT strongly supported the action, but also acknowledged that

investments in [...] biotechnology [...] increase productivity per area, reduce production costs, and give more sustainability to the production system. In view of this [...], we clarify that we approve of royalty payments. However, we defend the fact that their charging should be fair and supported by Brazilian patent legislation (APROSOJA-MT 2013, author's translation).

This statement again shows that the public discourse of Brazilian soy growers is oriented to distributional aspects of IP (the balance between R&D investments, productivity gains, and royalty costs) and is not framed in terms of the public interest. The first rulings issued on the lawsuit were favorable to soy growers (APROSOJA-MT 2013) and led Monsanto to suspend the collection of royalties on RR soybeans throughout the country in October 2012 (*Mercopress* 2012).

In response to the judicial defeats, Monsanto started to negotiate new IP agreements with organizations of rural producers other than APROSOJA-RS and APROSOJA-MT. In January 2013, the company had already reached an understanding with CNA and five rural associations at the state level (Monsanto et al. 2013). In the agreement, Monsanto committed itself to permanently canceling the charging of royalties on RR soybeans only for producers who accepted the terms of individual contracts on IP that would reflect the understanding reached with CNA (thus assuming that in the end, Monsanto would win the lawsuits, regain the right to charge royalties, but then voluntarily exempt soy growers who abided by the agreement). The understanding seemed to be a backlash in relation to everything else that had been achieved in Brazilian courts by APROSOJA-RS and APROSOJA-

MT. Nevertheless, when Monsanto actually started to present the contracts for individual soy growers, CNA realized that they included clauses about the licensing of a second generation of GM soybeans that had not even started to be commercialized. In the contracts, rural producers recognized that patents on RR soybeans were valid until 2014, implying that the cancellation of royalty charges was virtually just a favor offered by Monsanto. Soy growers would also have to abdicate any previous legal demands regarding Monsanto's IP and accept the possibility of royalties being charged on the sale of harvests. CNA reacted with indignation, stating that rural producers should not sign such contracts and demanding the annulment of any contracts already signed (*Revista Globo Rural* 2013).

In July 2013, Monsanto's attempts to co-opt soy growers were partly effective. In exchange for a 16-percent discount on royalties to be paid on the second generation of GM soybeans over the next four years, FAMATO decided to quit its lawsuit against Monsanto (*G1* 2013). The decision was supported by APROSOJA-MT and was made behind closed doors by the organization's leadership. The "benefit" will be extended to any Brazilian soy grower who signs a contract with Monsanto submitting to rules about the use of the new GM soybeans and quitting mutual obligations related to the RR technology (*Reuters* 2013c). Again, Brazilian soy growers – in this case those linked to APROSOJA-MT – showed that they are more concerned with the short-term distributional implications of IP rights than with their long-term substantive nature as legal rights. In September 2013, APROSOJA-RS was still waiting for a final ruling from the Brazilian judiciary on the case against Monsanto. If it wins, soy growers will be obtaining a response from the judiciary that their mobilization could not get from the executive and legislative branches of the state.

In sum, since the 1990s, the mobilization of Brazilian soy growers over IP on seeds has been carried out by different organizations and, in recent years, by state-level associations (APROSOJA-RS and APROSOJA-MT). These organizations diverge in the approach they take, do not coordinate their actions nationally, and articulate a public discourse focusing on short-term distributional issues. Moreover, having been established in the late 2000s, APROSOJA-RS and APROSOJA-MT did not accumulate experience through participation in the making of the Law of Protection of Cultivars and the Law of Industrial Property. Partly as a result of that, the Brazilian IP regime on seeds has become more restrictive, and Monsanto has only faced partial setbacks of a momentary nature.

3.3 Paraguay

In 1991, the Paraguayan Ministry of Agriculture and Livestock created a committee to draft a law that would provide recognition for IP rights on plant varieties (SENAVE 2009: 50). In 1994, the draft was turned into the Law of Seeds and Protection of Cultivars, which was sanctioned by the president in August that year. Based on the UPOV convention of 1978, the law established plant breeders' rights with the same exceptions existing in Argentine and Brazilian law: (1) the right of rural producers to save seeds; (2) the right of plant breeders to use existing protected varieties to develop new ones without having to obtain the consent of the original cultivar owner; and (3) the right of the state to declare the restricted public use of certain varieties in cases of national interest. In 1996, the Paraguayan Congress ratified the UPOV act of 1978. Paraguay is also a signatory of TRIPS, but the state only enacted a new law of patents adapting local rules to international standards in November 2000. The law allows patents on GM microorganisms and genes, but not on plants and animals as a whole. Unfortunately, there is not much information available about the participation of rural producers in the formulation of these laws and of other norms issued later by the Ministry of Agriculture and Livestock and aimed at curtailing the right to save seeds.¹⁸

As in the case of Brazil, since the late 1990s, RR soybeans had been smuggled from Argentina into Paraguay. Once the cultivation had reached a large scale, Monsanto started to demand compensation for the use of RR technology, as it had been doing in Argentina and Brazil. According to sources from the Paraguayan Chamber of Exporters and Traders of Grains and Oilseeds (Camara Paraguaya de Exportadores y Comercializadores de Cereales y Oleaginosas, CAPECO), soy growers initially refused to pay royalties to Monsanto, and negotiations lasted for around one and a half years.¹⁹ Sources from the National Service for Plant and Seed Quality and Health (Servicio Nacional de Calidad y Sanidad Vegetal y de Semillas, SENAVE) stated that representatives of soy growers wanted royalties only to be paid when seeds were purchased, but Monsanto demanded that payments be made at the point of sale, because the use of certified seeds in Paraguay was very low at that time.²⁰ Given the reluctance of rural producers, Monsanto informed them that it could charge royalties at the ports of destination of

18 Resolutions 1471 and 1630 of 2004 (issued by the Ministry of Agriculture and Livestock), and Resolutions 669 of 2007, 171 of 2010, and 355 of 2012 (issued by SENAVE).

19 Interview, Asunción, March 2011.

20 Interview, Asunción, March 2011.

Paraguayan soybean products (*La Nación* (Paraguay) 2005a). As in Argentina, the RR gene had never been patented in Paraguay, so the corporation based its claims on patents held in Europe.

According to sources from the Association of Soy Growers of Paraguay (Asociación de Productores de Soja, Oleaginosas y Cereales del Paraguay, APS), the Association of Seed Producers of Paraguay (Asociación de Productores de Semillas del Paraguay, APROSEMP), and SENAVE, these pressures motivated the main organizations of Paraguayan agribusiness to present a proposal to Monsanto in September 2004.²¹ The organizations were APROSEMP, APS, the Agricultural Coordination of Paraguay – CAP (an organization of rural producers, Coordinadora Agrícola del Paraguay), CAPECO, and the Federation of Cooperatives of Production (FECO PROD, an association of cooperatives of rural producers that accounts for over half of the country’s agricultural production). The mechanism proposed was basically the same one that had been demanded by Monsanto: the charge of royalties over harvests upon their sale by rural producers to crushing industries and trading houses. The motives for the proposal stated by the organizations included the legal implications of the Law of Seeds and Protection of Cultivars, the Cartagena Protocol on Biosafety, the Convention on Biodiversity, and the 1978 UPOV convention. Given that the RR gene was never patented in Paraguay (and as legal disputes in Argentina and Brazil suggest), these alleged implications were not really meaningful. In Argentina and Brazil, the 1978 UPOV convention and similar aspects of their laws of seeds have been used by rural producers to justify actions against Monsanto’s system of royalty collection. The fact that Paraguayan organizations used that legislation to justify the system reveals their vulnerability to persuasion by the corporation. In Filomeno (2013), I showed how this vulnerability was partly a result of the weak capacity of the Paraguayan state in IP and in agricultural R&D. Here, I argue that the weak mobilization of soy growers was also a reason for their acquiescence to Monsanto’s demand.

On 14 September 2004, Monsanto formally replied with a counter-offer detailing the implementation of the system. In the document, Enrique Grazzini (Monsanto’s manager for technological licensing) stated the advantages offered by RR soybeans as well as a list of countries where Mon-

21 Interviews, Asunción, March 2011. The proposal (collected during fieldwork in Asunción in March 2011) is entitled “Acuerdo marco sobre incorporación de biotecnología agrícola” and was signed by CAPECO, APROSEMP, CAP, FECO PROD, and APS.

santo held a patent on the correspondent technology.²² On 8 March 2005, after further negotiations, the Paraguayan organizations presented another offer agreeing to the payment of royalties at the point of sale of harvests.²³ The proposal was soon accepted by Monsanto, and the first royalties obtained this way were already charged on the harvest of 2004–2005.

The pattern of mobilization of Paraguayan rural producers weakened their position in relation to Monsanto. Although soy growers were mostly represented by APS in negotiations with the corporation, their political representation was very much intertwined with that of actors who, in some respects, have divergent interests. APS is a member of the Union of Production Guilds (Unión de Gremios de la Producción, UGP), one of the most important business associations in Paraguay that also includes APROSEMP (seed companies) and CAPECO (exporters). Both APROSEMP and CAPECO have transnational seed companies among their members. Looking at the boards of directors of the main organizations participating in IP negotiations with Monsanto during and after the agreement, it is clear that there is a substantial overlap among them, for leaders of one organization often hold positions on the boards of one or more of the other organizations.²⁴ On visits to these organizations, it is easy to see that “everyone knows everyone else.”²⁵

This interwoven structure of political representation was mentioned by members of the board of directors of those organizations as a condition facilitating the settlement with Monsanto.²⁶ Sources from SENAVE share this understanding.²⁷ In such a framework, it becomes difficult for rural producers (especially smallholders) to articulate their demands in the face of more powerful actors from other segments of the soybean agro-industrial complex. Furthermore, Paraguayan soy growers were not assisted by IP experts during the negotiations with Monsanto, something that could have helped them in the formulation of a more compelling argument and public discourse. Lastly, APS was then only a few years old and did not have extensive organizational and political experience.

22 An eight-page document signed by Enrique Grazzini (Monsanto’s manager of technological licensing), entitled “Acuerdo Marco” and obtained by the author during fieldwork in Asunción in March 2011.

23 Letter addressed to Enrique Grazzini and Alberto Barbero (executives from Monsanto), signed by CAPECO, APROSEMP, CAP, FECOPROD, APS, and UNICO OP (obtained during fieldwork in Asunción in March 2011).

24 Author’s review of institutional websites retrieved on 18 March 2011.

25 Personal observation, Asunción, March 2011.

26 Interviews with CAPECO and APS, Asunción, March 2011.

27 Interview with SENAVE, Asunción, March 2011.

After Monsanto's system was implemented, Paraguayan soy growers perceived their relationship with the corporation as one of unequal exchange. According to APS, rural producers felt that, despite royalty payments, no benefit had been obtained other than the use of current technology.²⁸ In an interview given to radio station Primero de Marzo in 2010, Claudia Russer (a former president of APS) stated that although Monsanto had established a local division in Paraguay, only 35 percent of the 30 million USD in royalties paid annually by Paraguayan soy growers stay in the country (through local breeding companies and INBIO (Instituto de Biotecnología Agrícola), a local research institute funded by Monsanto).²⁹

In November 2010, amidst discontent on the part of soy growers and local seed companies, the system of royalty collection was changed to give rural producers the option of paying royalties the moment they purchased seeds (a transition that had been mentioned in the original agreement with Monsanto, but that the system itself did not stimulate). Under the new, mixed system, rural producers who opt for the payment of royalties when they purchase certified seeds will receive documents that exempt them from the payment of royalties on the sale of grain proportionally to the amount of certified seeds purchased.³⁰ According to APS and INBIO, this option will imply lower payments by soy growers (*ABC Digital* 2010).

Early in 2011, complaints by rural producers about royalties increased. Many of them affirmed not knowing the details of the agreement with Monsanto or the criteria used to determine royalty values, which many people considered too high (*La Nación* (Paraguay) 2011). Most rural producers disagreed with the obligation of paying royalties at silos instead of at the point of sale and with the criteria for dividing up royalties between Monsanto, local plant breeders, and INBIO.³¹ Many say they are charged royalties automatically at silos, without their consent and frequently without knowing how much was actually owed.³² All these statements show how the main problem for Paraguayan soy growers is distributive, with no reference being made to broader issues like food or technological or national sovereignty.

Opposition to Monsanto escalated in 2012 when the news of judicial victories by Brazilian soy growers against the firm arrived in Paraguay. With the assistance of Neri Perin, an attorney working for APROSOJA-RS, APS demanded that Monsanto should suspend its royalty charges, arguing that

28 Interview, Asunción, March 2011.

29 Voice recording of the interview made by the author during fieldwork in Asunción in March 2011.

30 Interviews with APROSEMP and INBIO, Asunción, March 2011.

31 Interview with APS, Asunción, March 2011.

32 Interview with APS, Asunción, March 2011.

patents on RR soybeans had expired in 2010 (*ABC Color* 2012). Nevertheless, FECOPROD, the National Center of Cooperatives (UNICOOP), APROSEMP, CAPECO, and CAP issued a joint statement saying that

Monsanto holds intellectual property rights related to Roundup Ready soybeans and products from RR soybeans in the destination markets for Paraguayan production. For this reason, there was an agreement in 2004 on a mechanism for royalty payments [...] so that RR soybean products can be exported to countries where [Monsanto's] intellectual property rights are in effect (*ABC Color* 2012, author's own translation).

This claim is not valid considering Monsanto's defeat by Argentina in European courts and shows how much Paraguayan organizations were hegemonized by the corporation. Once more, organizations of rural producers (FECOPROD, UNICOOP, CAP) were unable to mobilize independently from organizations of seed companies and exporters (APROSEMP, CAPECO). For APS, the acquiescence of those organizations to Monsanto was either a product of the pressure exerted by the corporation or of the fear of losing privileges related to contracts with INBIO on the part of officials of those associations (*La Nación* (Paraguay) 2012a).

Not having an understanding with Monsanto and other local organizations, APS took the issue to court. Early on, in April 2013, a judge decided in favor of Monsanto (*Reuters* 2013a) in spite of the similarities between Paraguayan and Brazilian law and the absence of a patent on RR soybeans in the country. During the conflict, APS stated that soy growers were not against IP, but defended the stance that it should be compensated with fair and legal payments (*La Nación* (Paraguay) 2012b). The organization declared that the questioning of royalties on RR soybeans did not harm negotiations about the second generation of GM soybeans soon to be released by Monsanto (*Reuters* 2013a). Again, Paraguayan soy growers articulated a public discourse focused on short-term economic gains and without making any references to technological or national sovereignty. Their mobilization, however, did yield a partial benefit. In March 2013, Monsanto offered Paraguayan soy growers a "waiver" on royalties on RR soybeans starting in 2014 as a way of encouraging an "orderly transition" to the second generation of transgenic varieties (*Reuters* 2013b), the same measure it took in Brazil after a transient judicial ruling boosted the mobilization of soy growers against the company.

4 Conclusion

Soybean agriculture is one of the most important industries in South America. It has contributed to economic growth, but its adverse effects on the environment, food security, and land dispossession have prompted conflicts between the state, transnational capital, rural producers, social movements, and NGOs in the region. In this study, I have focused on the conflicts over control and use of agricultural biotechnology. Soy growers have aligned with seed companies in defense of the use of GM seeds, but have struggled against them over IP rights. The Argentine IP regime on seeds has stood out on account of its relative immunity to pressure from seed companies. In the light of hypotheses available in the literature about the mobilization of knowledge-users over IP, I narrated and compared the conflicts over IP on seeds in soybean agriculture in Argentina, Brazil, and Paraguay from the 1990s to today to identify reasons for the stability of the Argentine IP regime on seeds.

This analysis led me to synthesize these hypotheses into an explanation focusing on the pattern of mobilization among Argentine soy growers. I showed that this group of farmers has been favored by the stability of the organizations representing its political interests. FAA, CONINAGRO, CRA, and SRA have represented rural producers and acted on their behalf in IP disputes for decades. They have also benefited from increasingly coordinating their actions on the national level when necessary. FAA has remained an independent channel for the articulation of demands made by small rural producers, the most sensitive to seed costs. While doing so, it has relied on the assistance of IP experts to develop a public discourse that emphasizes national sovereignty and the centrality of soybean agriculture to the Argentine economy. In sum, stability, coordination, independence of the actors most sensitive to IP, and a broad framing of claims.

While synthesizing hypotheses offered in previous works, my study demonstrated the consistency present in this emerging body of literature, the potential of its explanatory power in terms of countries, industries, and levels of analysis, and it also elaborated a relational perspective that emphasizes “relations” over “attributes” in the study of mobilization. This is the main theoretical contribution of the article. Although this study focused on country-specific patterns of mobilization, it did not assume that transnational relations are unimportant. In Filomeno (2012), I showed how Monsanto used a strategy of “divide and conquer” using transnational competition between soy growers and government agencies from Argentina, Brazil, and Paraguay to obtain recognition and protection to IP rights on seeds. Instead of cooperating sufficiently to increase their bargaining power in relation to Monsanto, organizations of rural producers and government agencies from

the three countries engaged in bilateral negotiations with the company motivated by the concern that soy growers from neighboring countries might have access to key technology before them.

As a synthetic extension of previous hypotheses obtained through a comparative historical analysis, my argument is historically specific and should not be taken as a universal-law-like statement. It can, however, serve as a starting point for analyses of the formation and change of IP regimes in other countries and industries, provided that one takes into account aspects that might distinguish South American soybean agriculture from other cases in which IP is a contentious issue. The export and market-oriented nature of soybean agriculture makes soy growers more vulnerable to demands from seed companies for stronger protection to IP in exchange for new technology. The threats of soybean agriculture to food security also limit the possibilities for framing soy growers' IP claims in terms of the public interest. Even though Argentine soy growers were able to do that, an overall characteristic of conflicts over IP in South American soybean agriculture has been the absence of a coalition between soy growers, rural social movements, and NGOs against Monsanto. These groups have sharply different interests and normative understandings in relation to biotechnology and agriculture. Still, all of them should pay attention to the conditions that, according to this study, affect their capacity to shape IP regimes.

References

- ABC Color* (2012), Brasileño asesora a la APS, 26 November, online: <www.abc.com.py/edicion-impresa/economia/brasilenos-asesora-a-la-aps-en-el-conflicto-por-las-regalias-481891.html> (27 June 2013).
- ABC Digital* (2010), Cambian modo de pago de regalías por la soja, 11 April, online: <www.abc.com.py/nota/cambian-modo-de-pago-de-regalias-por-la-soja> (31 December 2010).
- ANA see Articulação Nacional de Agro-ecologia
- APROSOJA-MT (2013), *Aprosoja esclarece: perguntas e respostas sobre royalties – RR*, 31 January, online: <www.aprosoja.com.br/noticia/aprosoja-esclarece-perguntas-e-respostas-sobre-royalties-rr/> (2 February 2013).
- Araújo, José Cordeiro de (2010), *A Lei de Proteção de Cultivares: análise de sua formulação e conteúdo*, Brasília, Brazil: Câmara dos Deputados (Edições Câmara).
- Articulação Nacional de Agro-ecologia et al. (2009), *Letter to the presidency opposing projects changing the Law for Protection of Cultivars*, 27 February, Brasília, Brazil, online: <www4.planalto.gov.br/consea/documentos/producao-e-abastecimento/em-lei-dos-cultivares> (27 May 2011).

- Brieva, Silvia, Rocío Ceverio, and Liliana Iriarte (2008), *Trayectoria de las relaciones socio-técnicas de los derechos de propiedad intelectual en la agricultura argentina: los derechos de obtención de semillas (DOV) en trigo y soja desde principios de los años '70 a la actualidad*, paper presented at XXI Jornadas de Historia Económica of the Asociación Argentina de Historia Económica, 23–26 September, Universidad Nacional de Tres de Febrero, Caseros, Argentina.
- Bruno, Regina (1997), *Senhores da terra, senhores da guerra: a nova face política das elites agroindustriais no Brasil*, Rio de Janeiro, Brazil: Forense Universitária y Editora Universidade Rural.
- Câmara dos Deputados (2009), *Tachygraphic notes of the public audience of the Committee of Agriculture, Livestock, Food Provision and Rural Development of the Brazilian House of Representatives held on September 15, 2009*. Departamento de Taquígrafia da Câmara dos Deputados do Brasil, Brasília, Brazil: Câmara dos Deputados, online: <www2.camara.gov.br/atividade-legislativa/comissoes/comissoes-permanentes/capadr/notas-taquigraficas/nt17062008a.pdf> (2 April 2012).
- Casella, Aldo (2010a), *O.G.M. y propiedad intelectual: conflictos locales y globales*, paper presented at XI Congreso Mundial de Derecho Agrario, Union Mundial de Agraristas Universitarios (UMAU), 8–11 June, Toledo, Spain.
- Casella, Aldo (2010b), *La sentencia del caso Monsanto/ Argentina y el alcance de las patentes sobre secuencias de ADN*, paper presented at VIII Encuentro de Colegios de Abogados sobre Temas de Derecho Agrario, 21–22 October, Rosario, Argentina.
- Casella, Aldo (2006), *Alcance de la propiedad intelectual en vegetales: el uso de semilla propia en Argentina y los límites de la patente biotecnológica europea en el caso Monsanto*, paper presented at VI Encuentro de Colegios de Abogados sobre Temas de Derecho Agrario, 5–6 October, Rosario, Argentina.
- Chang, Ha-Joon (2001), *Who benefits from the New International Intellectual Property rights regime? And what should Africa do?*, Technopolicy Brief Series No. 1, Nairobi, Kenya: African Technology Policy Studies Network.
- Clarín (2004), *Crece la pelea por las semillas de soja transgénica*, 31 December, online: <<http://edant.clarin.com/diario/2004/12/31/elpais/p-01401.htm>> (31 March 2012).
- CONINAGRO (Confederación Intercooperativa de Agricultura y Pecuaria) (2010), *No perdamos el tren de la tecnología*, in: *Integración (Revista Institucional de CONINAGRO)*, 1, 6, 28–32.
- Consultor Jurídico (2005), *Produtor é isentado de pagar royalties da soja à Monsanto*, 11 January, online: <www.conjur.com.br/2005-jan-11/produtor_isentado_pagar_royalties_soja_monsanto> (4 February 2010).

- Conti, Giovanni (2012), *Sentença judicial relativa ao processo No. 001/1.09.010 6915-2*, Poder Judiciário do Estado do Rio Grande do Sul, Comarca de Porto Alegre, 4 April, Porto Alegre, Brazil.
- Correa, Carlos (2010), A Monsanto perde sua patente, in: *Le Monde Diplomatique Brasil*, December, online: <www.diplomatique.org.br/print.php?tipo=ar&id=825> (1 December 2011).
- Correa, Carlos (2006), Monsanto vs. Argentina, in: *Le Monde Diplomatique [El Diplo]*, April, online: <www.insumisos.com/diplo/NODE/813.HTM> (16 September 2010).
- Curletti, Mírian (2003), *Proyecto de Comunicación 3194-S-03 (12/09/2003)*, Buenos Aires, Argentina: Senado de la Nación.
- Domingo, O. (2003), *Intellectual property management in the development of a medium-sized Argentinean seed company*, paper presented at the WIPO-UPOV Symposium on the Intellectual Property Rights in Plant Biotechnology, October 2003, Geneva, Switzerland.
- Drahos, Peter (2002), Developing Countries and International Intellectual Property Standard-Setting, in: *The Journal of World Intellectual Property*, 5, 5 765–789.
- FAA see Federación Agraria Argentina
- Federación Agraria Argentina (2011), *Nota Original FAA: Monsanto: una nueva ofensiva al margen de la ley de semillas y el Estado Nacional*, 26 April, online: <www.faa.com.ar/noticia.php?id=384> (30 March 2012).
- Federación Agraria Argentina (2005), *Patentamiento y regalías en semillas – Un país que resigna soberanía – Accionar y posición de Federación Agraria Argentina*, Buenos Aires, Argentina: Federación Agraria Argentina.
- Filomeno, Felipe A. (forthcoming), Patterns of rule-making and intellectual property regimes: Lessons from South American soybean agriculture, in: *Journal of Comparative Politics*.
- Filomeno, Felipe A. (2013), State capacity and intellectual property regimes: Lessons from South American soybean agriculture, in: *Technology in Society*, 35, 139–152.
- Filomeno, Felipe A. (2012), A mudança institucional em perspectiva histórico-mundial: competição transnacional e propriedade intelectual na agricultura de soja da América do Sul, in: Felipe A. Filomeno, P. A. Vieira, and R. L. Vieira (eds), *O Brasil e o Capitalismo Histórico: Passado e Presente na Análise de Sistemas-Mundo*, São Paulo: EdUNESP, 297–327.
- Folha On Line (2004), Monsanto diz ter acordo com produtor do RS, 29 January, online: <www1.folha.uol.com.br/folha/dinheiro/ult91u80014.shtml> (9 September 2011).
- Freitas, Rose de (2007), *Projeto de Lei n. 2.325 de 2007 (10/31/2007)*, Brasília, Brazil: Câmara dos Deputados.

- Fridman, Susana A. (2001), *Biotecnología: derechos del obtentor y del agricultor; alternativas legislativas*, Working Paper S-018, Universidad Nacional del Nordeste, Corrientes, Argentina: Ciencia & Técnica, Comunicaciones Científicas y Tecnológicas.
- G1 (2013), *Famato oficializa fim de ações na Justiça contra Monsanto*, 24 July, online: <<http://g1.globo.com/mato-grosso/noticia/2013/07/famato-oficializa-fim-de-acoes-na-justica-contra-monsanto.html>> (24 July 2013).
- Gutiérrez, Marta (1994), *El debate y el impacto de los derechos de obtentor en los países en desarrollo, el caso argentino*, Buenos Aires, Argentina: IICA.
- Gutiérrez, Marta, and Julio Penna (2004), *Derechos de obtentor y estrategias de marketing en la generación de variedades públicas y privadas*, Documento de Trabajo No. 31, Buenos Aires, Argentina: Instituto Nacional de Tecnología Agropecuaria.
- Halbert, Debora (2006), *Resisting Intellectual Property*, Abingdon and New York: Routledge.
- Haunss, Sebastian, and Lars Kohlmorgen (2010), *Conflicts about intellectual property claims: the role and function of collective action networks*, in: *Journal of European Public Policy*, 17, 2, 242–262.
- Herrero, Andrés S. (2006), *La Excepción del Agricultor: Análisis Dogmático*, in: Miguel Rapela and Gustavo Schötz (eds), *Innovación y propiedad intelectual en mejoramiento vegetal y biotecnología agrícola: Estudio interdisciplinar y propuestas para la Argentina*, Buenos Aires, Argentina: Heliasta, 159–206.
- Herring, Ron (2007), *Stealth Seeds: Bioproperty, Biosafety, Biopolitics*, in: *Journal of Development Studies*, 43, 1, 130–157.
- Hoje em Dia (no date), *Produtor já evita soja transgênica em Minas Gerais*, online: <www.portalhd.com.br/cmlink/hoje-em-dia/noticias/economia-e-negocios/produtor-ja-evita-soja-transgenica-em-minas-gerais-1.7796> (19 February 2010).
- IstoÉ Dinheiro (2003), *Monsanto ameaça o Brasil*, 25 June, online: <www.terra.com.br/istoedinheiro/304/economia/304_monsanto_ameaca.htm> (19 February 2010).
- La Nación (Paraguay) (2012a), *APS pide vitar retención y rebaja*, 2 November, online: <www.lanacion.com.py/articulo/97782-aps-pide-evitar-retencion-y-rebaja.html> (27 June 2013).
- La Nación (Paraguay) (2012b), *Productores buscan frenar pago de regalías a Monsanto por soja RR*, 10 November, online: <www.lanacion.com.py/articulo/94288-productores-buscan-frenar-pago-de-regalias-a-monsanto-por-soja-rr.html> (30 October 2012).
- La Nación (Paraguay) (2011), *Resurge el tema de regalías por tecnología de Monsanto*, 23 January, online: <www.lanacion.com.py/articulo.php?

resurge-el-tema-de-regalias-por-tecnologia-de-mons&edicion=2&sec=2&art=9678> (14 March 2011).

- La Nación* (Paraguay) (2005a), Sojeros quieren pagar un canon menor por transgénicos, 4 February, online: <http://anteriores.lanacion.com.py/imp_not.php?not=97672&fecha=2005/02/04> (19 April 2010).
- Mendonça, Sônia R. (2005), Estado e hegemonia do agronegócio no Brasil, in: *História e Perspectivas*, 32, 33, 91–132.
- Mercopress* (2012), Monsanto suspends collection of royalties in Brazil following state court ruling, 18 October, online: <<http://en.mercopress.com/2012/10/18/monsanto-suspends-collection-of-royalties-in-brazil-following-state-court-ruling>> (18 November 2013).
- Micheletto, Moacir (2008), *Projeto de Lei n. 3.100 de 2008 (03/26/2008)*, Brasília, Brazil: Câmara dos Deputados.
- Monsanto, CNA, FARSUL, FAMASUL, FAEG, FAEP, FAET, FAEPI (2013), *Declaração de Princípios. Brasília*, 15 January, online: <www.farsul.org.br/Slides/pdf/declaracao_rr1.PDF> (10 June 2013).
- Muniagurria, Marcelo (1992), *Proyecto de Declaración 2351-D-92*, Buenos Aires, Argentina: Honorable Cámara de Diputados de la Nación.
- Nardes, Pedro (2009), *Presentation given at the Committee of Agriculture, Livestock, Food Provision and Rural Development of the Brazilian Chamber of Deputies on September 15 of 2009*, online: <www.camara.gov.br/internet/ordemdodia/ordemDetalheReuniaoCom.asp?codReuniao=21638> (5 May 2011).
- Nellen-Stucky, R., and F. Meienberg (2006), *Harvesting Royalties for Sowing Dissent? Monsanto's Campaign against Argentina's Patent Policy*, *Berne Declaration*, online: <www.evb.ch/cm_data/Artikel_Monsanto_Soya_Arg-EU_E_final.pdf> (19 February 2010).
- Newell, Peter (2009), Bio-Hegemony: The Political Economy of Agricultural Biotechnology in Argentina, in: *Journal of Latin American Studies*, 41, 27–57.
- Parayil, Govindan (2003), Mapping technological trajectories of the Green Revolution and the Gene Revolution from modernization to globalization, in: *Research Policy*, 32, 971–990.
- Reuters* (2013a), Monsanto to waive some GMO soy royalties in Paraguay, 5 February, online: <www.reuters.com/assets/print?aid=USL2N0CK00B20130328> (16 June 2013).
- Reuters* (2013b), Paraguayan soy farmers ask courts to halt Monsanto royalties, 27 March, online: <www.reuters.com/article/2013/02/05/paraguay-monsanto-idUSL1N0B586W20130205> (27 June 2013).
- Reuters* (2013c), Brazil soy group says to end legal dispute with Monsanto, 9 August, online: <www.reuters.com/assets/print?aid=USL1N0GA00720130809> (9 August 2013).

- Revista Globo Rural* (2013), CNA rejeita termos de contrato sobre soja proposto pela Monsanto, 20 February, online: <<http://revistagloborural.globo.com/Revista/Common/0,,ERT331403-18077,00.html>> (18 November 2013).
- Robinson, William I. (2008), *Latin America and Global Capitalism: A Critical Globalization Perspective*, Baltimore, MD: The Johns Hopkins University Press.
- Rodrigues, Roberta L. (2009), *A Propriedade Intelectual nos OGMs – um estudo de caso da soja geneticamente modificada para tolerância ao herbicida à base de glifosato*, PhD dissertation, Graduate Program in Plant Biotechnology, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Brazil.
- Sell, Susan K. (2013), Revenge of the “Nerds”: Collective Action against Intellectual Property Maximalism in the Global Information Age, in: *International Studies Review*, 15, 67–85.
- Sell, Susan K., and Aseem Prakash (2004), Using Ideas Strategically: The Contest between Business and NGO Networks in Intellectual Property Rights, in: *International Studies Quarterly*, 48, 143–175.
- SENAVE see Servicio Nacional de Calidad y Sanidad Vegetal y Semillas
- Servicio Nacional de Calidad y Sanidad Vegetal y Semillas (2009), *Normativas paraguayas sobre semillas*, Asunción, Paraguay: SENAVE.
- Shadlen, Kenneth, and Sebastian Haunss (eds) (2009), *Politics of Intellectual Property: Contestation over the Ownership, Use, and Control of Knowledge and Information*, Cheltenham, Glos: Edward Elgar Publishing.
- SRA see Sociedad Rural Argentina
- Sociedad Rural Argentina (2004), *Regalías: posición de la Sociedad Rural Argentina*, 14 December, online: <www.ruralarg.org.ar/web/notas.php?var=nota&id=1233> (25 June 2010).
- Sociedad Rural Argentina (2006), *Rechazo de la Sociedad Rural Argentina a la restricción al uso propio gratuito de semillas*, 22 June, press release, online: <www.sra.org.ar> (10 December 2010).
- Sul Rural* (2005), Royalties, April, *Sul Rural* 259, 19, online: <www.sulrural.com.br/edicoes_anteriores_html.php?idjor=13> (10 May 2011).
- Taffarel, Ricardo, Juan Marino, and Ernesto Sanz (2005), *Proyecto de Ley S-709/05*, Buenos Aires, Argentina: Senado de la Nación.
- Terra* (2005), Produtores do RS devem pagar royalties à Monsanto, 18 February, online: <<http://noticias.terra.com.br/ciencia/noticias/0,,OI474463-EI1434,00-Produtores+do+RS+devem+pagar+royalties+a+Monsanto.html>> (4 February 2010).

- Teubal, Miguel (2008), *Expansión de la soja transgénica en la Argentina*, Discussion Paper No. 22, Grupo de Trabajo sobre Desarrollo y Medio Ambiente en las Américas, Global Development and Environment Institute (GDAE), Medford/Somerville: Tufts University.
- Tilly, Charles (1984), *Big Structures, Large Processes, Huge Comparisons*, New York, NY: Russell Sage Foundation.
- Valor Económico* (2009), Sojicultor gaúcho vai à justiça contra Monsanto, 19 March, online: <<http://aspta.org.br/campanha/boletim-434-20-de-marco-de-2009/>> (2 April 2012).
- Velho, Paulo E. (1995), *Análise da controvérsia sobre a lei de proteção de cultivares no Brasil: implicações sócio-econômicas e os condicionantes políticos para seu encerramento*, PhD dissertation, Department of Social Sciences, Universidade Estadual de Campinas (Unicamp), Campinas, Brazil.
- Vilela, Leonardo (2009), *Relatório do Projeto de Lei n. 2.325 de 2007 (Apenso o Projeto de Lei n. 3.100, de 2008)*, 11 pages, Brasília, Brazil: Câmara dos Deputados, online: <www.camara.gov.br/proposicoesWeb/fichadetrimitacao?idProposicao=374861> (3 April 2012).
- Witthaus, Mónica (2006), Superposición y contradicciones en la legislación argentina sobre derechos del obtentor y derechos de patentes, in: Miguel Rapela and Gustavo Schötz (eds), *Innovación y propiedad intelectual en mejoramiento vegetal y biotecnología agrícola: Estudio interdisciplinar y propuestas para la Argentina*, Buenos Aires, Argentina: Heliasta, 243–268.

Cómo los agricultores argentinos derrotaron a Monsanto: la movilización de los usuarios de conocimientos y los regímenes de propiedad intelectual

Resumen: Desde la década de los ochenta, gobiernos y empresas transnacionales de países centrales liderados por los Estados Unidos han impulsado un crecimiento mundial en la protección de la propiedad intelectual. En la agricultura, esto ha significado el fortalecimiento de los derechos de las empresas de semillas sobre las variedades vegetales que desarrollan, y la restricción de los derechos de los agricultores sobre las semillas que cultivan. Excepcionalmente, desde los años 1990 hasta 2013, los productores de soja argentinos lograron superar las presiones provenientes de la industria de semillas, asegurándose el derecho a guardar libremente variedades de semillas de sus propias cosechas, protegidas con derechos de propiedad intelectual, para el cultivo futuro. En base a un análisis histórico-comparativo de los conflictos por la propiedad intelectual sobre semillas en Argentina, Brasil

y Paraguay desde los años noventa hasta el 2013, este estudio sugiere que una movilización exitosa de usuarios de conocimiento en disputas por la propiedad intelectual depende de (1) la estabilidad organizativa de su representación política, (2) la coordinación entre las organizaciones que los representan, (3) la existencia de canales independientes para la representación de los usuarios de conocimiento más sensibles al pago de regalías, (4) su capacidad para producir un discurso público capaz de recoger el apoyo de una amplia coalición.

Palabras-claves: Argentina, Brasil, Paraguay, Monsanto, propiedad intelectual, movilización, agricultura de soja