

Royalty collection: Generating value in the soybean chain. An international study

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Agenda

- › ISF Royalty Collection Working Group
International Study on Soybeans - The Study
- › Evaluation process
- › Results
- › Conclusions

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General Outlook

- › 12 countries taking part in the study
- › Participating countries represent 77% of worldwide soybean production area sown
- › A table was prepared for participants to fill in order to report their legal framework, the IP recognition mechanism, the results, etc. using the same scheme
- › Detailed narrative explanation from each country

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Participants

RANK	COUNTRY	HECTARES
1	United States	33,613,960
2	Brazil	30,273,763
3	Argentina	19,252,552
4	India	10,908,000
5	China	6,730,668
6	Paraguay	3,500,000
7	Canada	2,235,100
8	Russian Federation	1,915,895
9	Ukraine	1,792,900
10	Bolivia	1,358,683
11	Uruguay	1,321,400
14	South Africa	503,000
16	Italy	232,867
18	Serbia	154,249
29	France	75,800
36	Hungary	42,980
54	Germany	9,000

Total world surface year 2014

117,719,293

Surface represented by the 12 countries participating in this study

91,214,671

% Surface

77.4%

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Working group

ISF	Piero Sismondo
Argentina	Miguel Rapela
Brazil	José Américo Pierre Rodriguez
Canada	Crosby Devitt
France	Antoine Alègre de la Soujeole
Germany	Alexandra Bönsch
Hungary	Gábor Polgár
Italy	Stéfano Conti
Paraguay	M. Estela Ojeda
Serbia	Svetlana Balešević-Tubić
South Africa	Lukeshni Chetty
United States	Bill Belzer
Uruguay	Diego Risso

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Country contributors

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Stefano Conti; Marco Nardi	Italy
Maria Estela Ojeda	Paraguay
Svetlana Balešević-Tubić; Jovan Vujović	Serbia
Eddie Goldshagg; Lukeshni Chetty	South Africa
Bill Belzer; Bryan Gerard	United States of America
Diego Risso	Uruguay

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Evaluation Forms

› 10 SECTIONS

1. Crop type
2. IP Protection Mechanisms - Legal framework
3. IP Protection Mechanisms - Tools for enforcement
4. Political will in territory
5. Who enforces / supports IPR in the territory?
6. Who collects royalties?
7. Economic factors
8. Variety indicator
9. VALUE CAPTURE MODEL
10. RESULTS

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1	Crop type	Conventional & GMO
2	IP Protection Mechanisms (Legal framework)	PVP
		Seed law
		Seed law
		Other law(s)
		PVP extended to FSS
		PVP extended to harvested material
		Patent
		Patent Law
		Coexistence (PVP + Patent)
		Trade Secret
		Trademark
3	IP protection mechanisms Tools for enforcement	Certification system
		Royalty collection system for germplasm
		Royalty collection system for biotechnology traits
		Contract
		Penalties for evasion

4	Political will in territory	Level of support for IP
		Farmers Unions' support
		Small farmers exception
5	Who enforces / supports IPR in the territory?	Government enforcement
		Government support
		Private sector
6	Who collects royalties?	For certified seed
		For FSS
		For biotech traits
7	Economic factors	Financial incentives
		Tax benefit
		Other factors?
8	Variety indicator	Perception (by the farmers) of the genetic gain
		Number of varieties protected/year
		Average lifetime variety cycle

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9	VALUE CAPTURE MODEL	Is the value capture model implemented only for germplasm (no biotechnology capture)?
		Is the value capture model implemented for germplasm plus traits (joint genetics & biotechnology capture)?
		Is the value capture model implemented considering separately germplasm and traits?
10	RESULTS	'Certified' Seed Use
		FSS (royalty bearing)
		FSS use (royalty free)
		Illegal Seed (brown bagging)
		Royalty collection %
		Cost of collection %
		REMUNERATION INDICATOR

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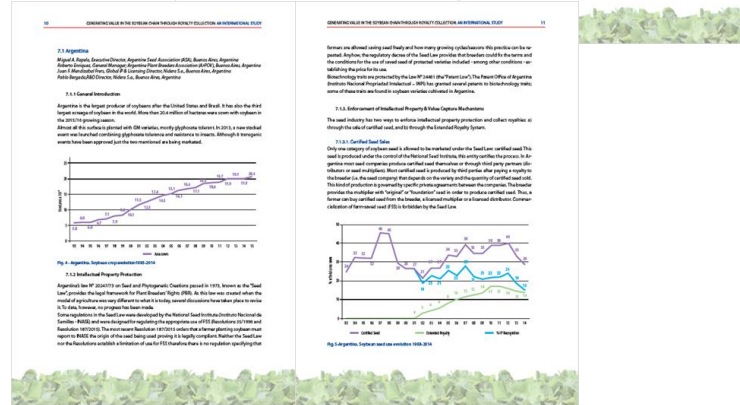
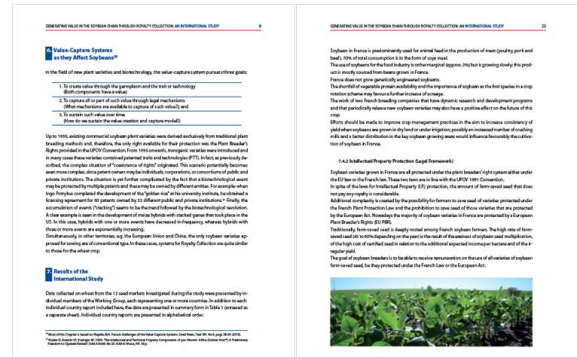
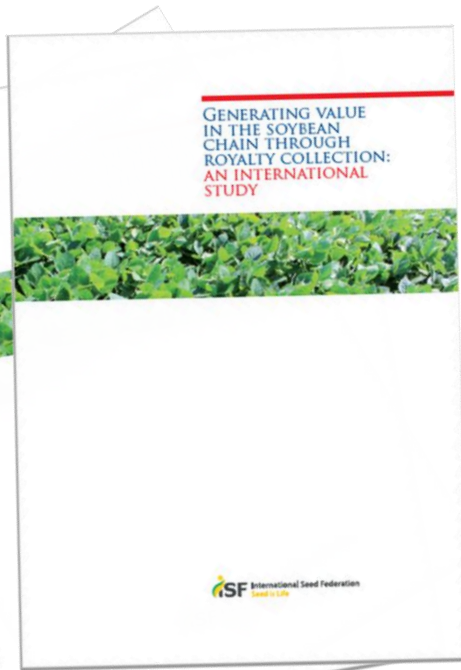
Evaluation Form Example:

Crop: SOYBEAN			SELECT COUNTRY: Uruguay	
	Specific use	Description / comments	Uruguay	COMMENTS
1	Crop type	Conventional & GMO	YES	Since 1999
	PVP	Does your country allow registration & cultivation of GMOs? Is your country a UPOV member? Which UPOV Act is your country member of? Or does it have an alternative "à la geniera" system that grants PVP	YES UPOV 1978	Although most of 1991's provisions are gathered in the seed law
	Seed law	Does your country have a separate Seed Law and PVP law or are both in one?	PVP & Seed in One Act	Seed Act # 16.811 (1997), based on UPOV '78, but
	Seed law	Please indicate Law, Amendments and dates		Only upon request of the National Seed Institute. If there is a signed contract between breeder & farmer, then also to breeders
	Other law(s)	1. e.g. farmer obligation to give data on FSS 2. Any other (Please give details)	YES	
2	IP Protection Mechanisms (Legal framework)	PVP extended to FSS PVP extended to harvested material	YES NO	
	Patent	Does your PVP include(s) the "harvested material protection"? On a specified variety Does your patent system include(s) the farmers exemption?	YES NO NO	
	Patent Law	Please indicate Law, Amendments and dates	Patent Law N° 17164	Approved in 2009
	Coexistence (PVP + Patent)	Can your country have both IP systems applied on the same seed?	YES	
	Trade Secret	In use in territory? (e.g. breeding processes)	YES	
	Trademark	Usually applicable to end-product	YES	Not compatible with PVP breeders' trademark for seeds
	Certification system	Mandatory (legal to sell uncertified seed) Voluntary (Seed can be sold without)	NO YES	Optional, at present the government is putting in place
	Royalty collection system for germplasm	Does your country have a royalty collection system for FSS? Does your country have a farmers' declaration based system (e.g. extended royalties) for FSS? Other, please describe in the "Comments" box	YES YES YES	The system has been developed and put in place by the Uruguayan Plant Breeders' Association (URUPOV). It's called the "Technological Value System" (TVS) There is no willingness from any party (farmers, government & breeders) to put in place a system of this through the "TVS"
	Royalty collection system for biotechnology traits	Does your country have a farmers' declaration based system (e.g. extended royalties) for FSS? Other, please describe in the "Comments" box	YES YES	URUPOV collects royalties and controls the licences Exactly the same one for germplasm so it's the same system but coexisting
3	IP protection mechanisms Tools for enforcement	Does your country have a point of delivery system (POD)? Does your country have a farmers' declaration based system (e.g. extended royalties) for FSS? Other, please describe in the "Comments" box	NO YES YES	TVS There is a system to collect royalties from biotech traits
	Contract	May be used to support PVP (e.g. bag tags, and/or a document signed by farmer when buying/receiving seed) Is it underpinned by PVP? May be used to support patents (e.g. bag tags, and/or a document signed by farmer when buying/receiving seed) Is it underpinned by patent law?	YES YES YES YES	The TVS is a contract based system Under Regulatory Decree N° 438/004, breeders' base No bag tags are used in Uruguay for IP protection
	Penalties for evasion	Costs and / or damages	YES	So far there aren't any court cases addressing "evasion" problems
4	Political will in territory	Level of support for IP Farmers Unions' support Small farmers' exemption	HIGH YES YES	At government and farmers' level Farmers unions, where never a problem on this Not in action by breeders' association
	Government enforcement	Official intervention? Test support by government	YES YES	The National Seed Institute (INASE) enforces, based on INASE has a special task force for enforcement, but
5	Who enforces / supports IPR in the territory?	Seed companies acting for themselves? Seed companies acting through plant breeders organizations?	NO YES	So far there are no court cases of FBR infringement In charge of supporting the official seed institute (INASE)

Crop: SOYBEAN			SELECT COUNTRY: Uruguay	
	Specific use	Description / comments	Uruguay	COMMENTS
6	Who collects royalties?	For certified seed For FSS For biotech traits	YES YES YES	Breeders themselves, plant breeders associations or a government/farmer/plant breeder organization Through the TVS (Technology Value System) Through the TVS
7	Economic factors	Financial incentives Tax benefit Other factors?	NO YES YES	Does not exist a program of this kind in Uruguay Farmers can deduct 1.6 times the cost the purchase of in spite of being a benefit for all s.o. of farmers, big ones have more economic factor. Currently the government
8	Variety indicator	Perception (by the farmers) of the genetic gain Number of varieties protected/year Average lifetime variety cycle	HIGH 19 5 to 6	Soybean is major crop, and so far there haven't been any soy varieties bred in Uruguay Only soybean varieties have been bred in Uruguay
9	VALUE CAPTURE MODEL	Is the value capture model implemented only for germplasm (no biotechnology capture)? (if answer is yes, go to Section 10A) Is the value capture model implemented for germplasm plus traits (joint genetics & traits)? Is the value capture model implemented considering separately germplasm and traits? (if answer is yes, complete Section 10A and Section 10B)	YES YES NO	So far there is only one trait in soybean. We don't know what will be the future scenarios for traits to come
Value capture of germplasm only or germplasm and biotechnology together				
10A	Certified Seed Use	Includes voluntary schemes. Seed may be not-certified by an official agency is such as	57%	
	FSS (royalty bearing)	Estimated as % of total seed use	40%	
	FSS (as a royalty free)	Estimated as % of total seed use	0%	
	Illegal Seed (brown bag)	Estimated as % of total seed use	3%	
10B	Royalty collection %	Certified FSS Germplasm	100%	
	Cost of collection %	Certified FSS	97%	
	REMUERATION INDICATOR	Germplasm or Germplasm + Biotech or Only Germplasm in those countries having a separately germplasm and traits capture	92%	
Value capture for biotechnology trait				
Does your country have a specific value capture system for biotechnology traits? If the answer is yes, please fill			YES	Indeed the system is NOT specific for biotech traits, but
Please provide a brief description for the biotechnology value capture system (e.g.: based on POD, based on seed use, etc.)			NOT APPLICABLE	
10B	Trait distribution: area planted with trait with royalty bearing (% of total soybean acreage)	Estimated area planted with biotech traits as % of total area planted	18%	
	Royalty collection %	Estimated as a % of total trait royalty bearing area planted	97%	
	Cost of collection %	e.g. Retention by collection agency	4%	
	REMUERATION INDICATOR	BIOTECH	94%	

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The study

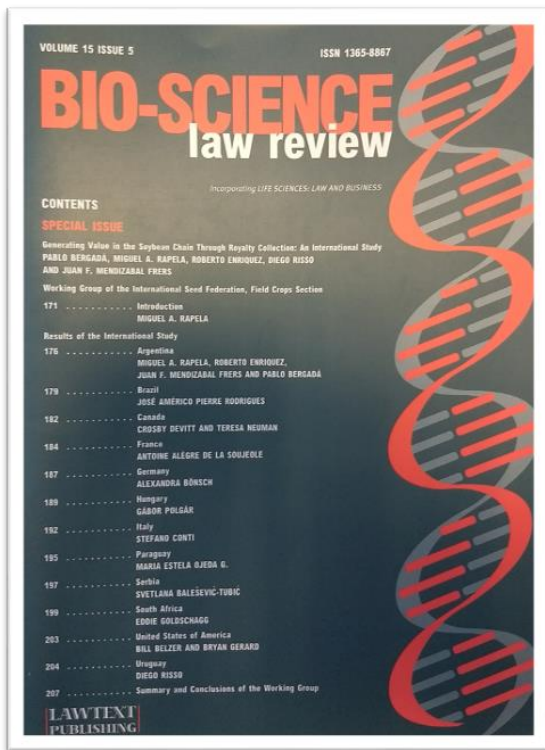


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The study



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Results

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	USA	GER	SER	URU	HUN	CAN	BR	IT	FR	PY	SA	ARG
GMO	YES	NO	NO	YES	NO	YES	YES	NO	NO	YES	YES	YES
UPOV Member	1991	1991	1991	1978	1991	1991	1978	1991	1991	1978	1978	1978
Germplasm Royalty Collection on FSS	NO	NO	YES	YES	NO	NO	NO	NO	NO	YES	NO	YES
Biotech Royalty Collection on FSS	NO	N / A	N / A	YES	N / A	NO	YES	N / A	N / A	YES	NO	NO
Small Farmers Exception	NO	YES	YES	YES	YES	NO	NO	YES	YES	NO	YES	NO
Specific Value Capture System for Biotech	N / A	N / A	N / A	YES	N / A	NO	YES	N / A	N / A	YES	NO	NO
Remuneration Indicator for Biotech	N / A	N / A	N / A	94%	N / A	N / A	50%	N / A	N / A	90%	N / A	N / A
Relative area sown												
Remuneration Indicator for Germ or Germ+Biotech	97%	95%	93%	92%	90%	80%	70%	67%	45%	35%	30%	27%

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Some ideas...

- › There are multiple and diverse systems for value capture in soybean.
- › Results on value capture efficiency differ from one country to another depending on several factors: there is not an industry model that ensures the success of each system.
- › More complexity is found in the systems due to the introduction of patent traits in the seed; there is more than one element to be protected: germplasm and biotechnological events.

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Some ideas...

- › Seed industry should work seriously at government level to ensure the legal protection in this new scenario where the new varieties include different technological developments aside from the germplasm.
- › This study should be the starting point for the new understanding of the seed industry in order to plan the future business scenario.

Thank you for your attention!



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