



Industrial hemp in the European Union

Legal, phytosanitary and sustainable aspects

Lorenza Romanese,

EIHA Managing Director

17th September 2024



Introduction of EIHA

We are the European trade association representing **farmers, processors & traders** of industrial hemp products*.

200+ members

Office in Brussels (BE)

** We do not cover smokable and vaping products*



The Secretariat

Lorenza

Managing Director

Seeds, leaves & flowers



Monica

**PA and Members
Manager**



Francesco

Sr Policy Advisor

Shives & fibres





The Board of Directors



From left to right with nationalities: Mr. Daniel Kruse (EIHA President) DE, Mr. Mark Reinders (Treasurer) NL, Mrs. Rachele Invernizzi IT, Mr. Jacek Kramarz PL, Mrs. Hanka Gabrielova CZ, Mr. Tony Reeves GB, Mr. Sasha Bajilo HR, Mr. Florian Pichlmaier DE, Mr. Christophe Fevrier FR



The Advisory Committee



From left to right with nationalities: Mr. Kenzi Riboulet MA/FR, Mr. Boris Banas SK, Mrs. Catherine Wilson UK/AT, Mr. Fabian Steinmetz DE, Mr. Klaas Eleveld NL, Mr. Tim Henley UK, Mr. Bernhard Beitzke DE



Scientific Committee

+ 40 extra-EU and EU Universities

 **Ukraine:** Lviv University

 **Canada:** McGill

 **USA:** Cornell, Oregon

 **Serbia:** IFVCNS, FINS

 **Russia:** **Russian State Uni**



Belgium: HoGent, Ugent, **CRA**



Czech Republic: **VSCHT Prague**



Denmark: VIA University College



France: INRAE, Unviersite de Franche Compté, ENIT, Université de Reims, Agroparitech



Germany: Hochschule Reutlingen, Hochschule Bremen, University Hohenheim



Italy: UniBo, UniCatt, IUAV, UniMoRe, UniMe, UniCt, UniRoma1, UniPi, CREA, UniPd, **UniBg, UniTo**



Spain: UPC, IRTA



Sweden: University of Borås, **Swedish Uni Agri**



The Netherlands: Wageningen, HAN



EIHA's mission



EIHA's objective: to normalise hemp as a **commodity** in the **food, feed, cosmetics, and manufacturing** industry, by setting a **clear science-based legislation**, incentivising **investments**, and encouraging a **sustainable and local value chain**.



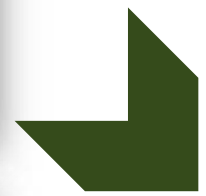
What is Hemp in the EU

Hemp (*Cannabis sativa Linn*) is a species in the *Cannabaceae* family in which the level of tetrahydrocannabinol (THC) is very low, according to the provisions under the common agricultural policy (CAP). Hemp is grown primarily for its industrial uses such as:

- Hemp seeds derived food: flour, protein, seeds, hemp seed oil
- Feed
- Construction materials
- Fibres & textile
- Paper
- Others: biofuel, extracts, cosmetics, plastic, non-woven, by-products, etc.



400,000 ha
(1940)



10,000 ha
(1960- 2000)



51,000 ha
(2022)



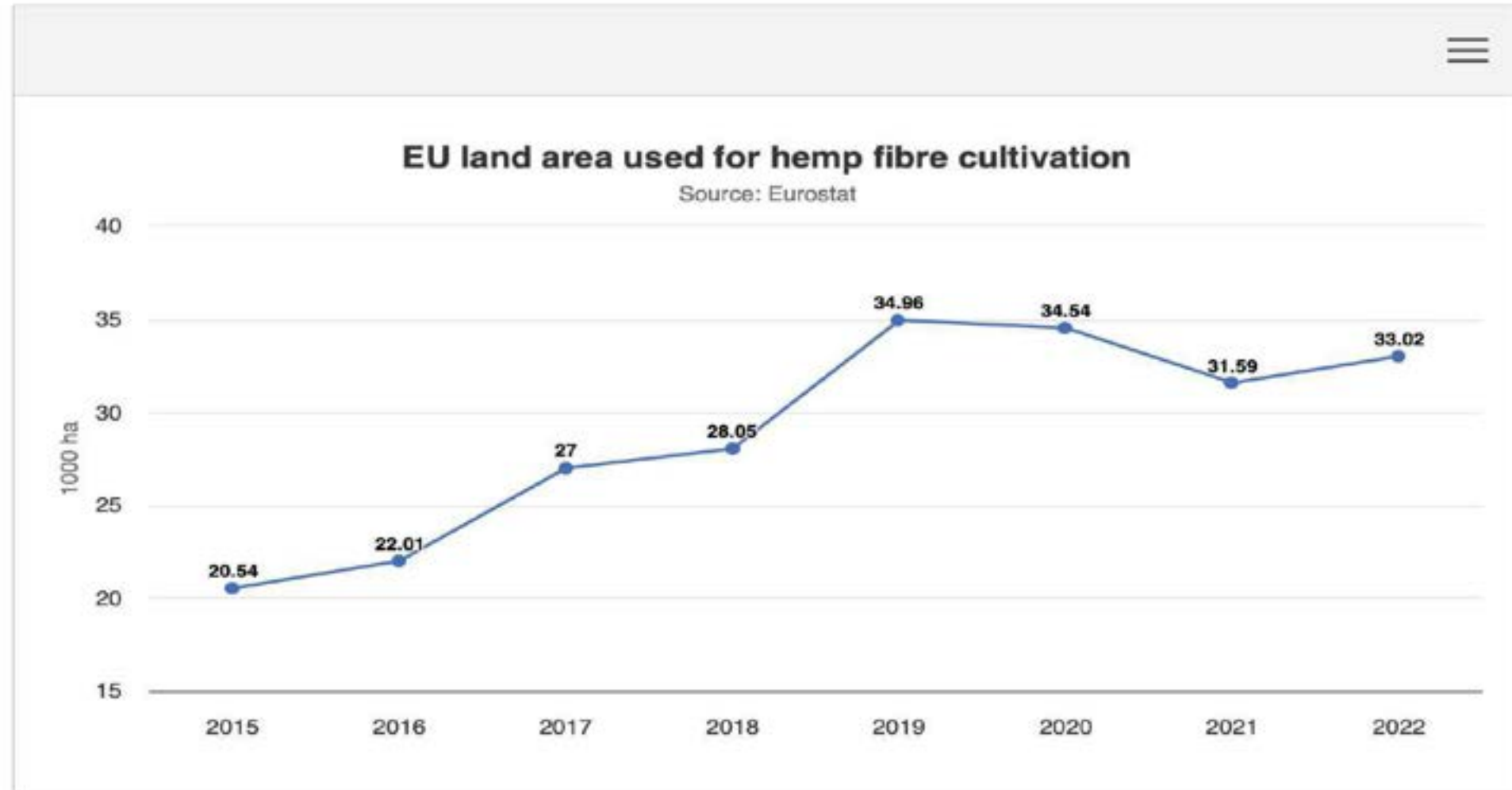
Synthetic fibres replaced natural fibres, and Cannabis plant was *demonised* by public policies, resulting in a **huge decrease** of hemp production in Europe



Hemp production in the EU

Hemp is a crop grown across Europe. In recent years the area dedicated to hemp cultivation for fibre has increased significantly in the EU from 20,540 hectares (ha) in 2015 to 33,020 ha in 2022 (a 60% increase). In the same period, the production of hemp increased from 97,130 tonnes to 179,020 tonnes (a 84.3% increase). France is the largest producer, accounting for more than 60% of EU production, followed by Germany (17%) and The Netherlands (5%).

[Source: EU Commission entry on hemp](#)





Total hemp hectares according to the EU

. AGRI . market report

	2018	2019	2020	2021	2022
Total EU (ha)	41.182,0	45.980,0	46.298,6	44.281,5	
France	16.458,0	14.550,0	16.880,0	18.280,0	21.700
Estonia	3.538,0	4.455,0	5.372,0	6.477,8	
Germany	3.114,0	4.508,0	5.362,0	6.443,0	6.943,0
Lithuania	1.470,0	9.182,0	6.000,0	2.310,0	
Poland	1.708,0	3.000,0	3.500,0	2.300,0	1.786,0
Austria	1.583,0	2.010,0	2.140,0	1.890,0	
Netherlands	3.833,0	1.880,0	1.830,0	1.703,0	



Total hemp hectares according to the EHA

. AGRI . market report

	2018	2019	2020	2021
Seeds (tons)	61.773,0	68.970,0	69.448,0	66.422,3
Stalks (tons)	209.214,0	233.589,0	235.207,7	224.960,3



What to do now: value chain development

- Foster a **policy framework** that support hemp cultivation and processing of hemp through science-based and proportionate approach
- Favour Government **incentives/funding** in the sector
- Helping **expanding markets** in food, construction, textiles, or bioplastics through transparency and knowledge sharing.

UNCTAD papers on:

[Commodities at a glance: special issue on industrial hemp](#)

[Measuring global exports of industrial hemp products](#)



Construction sector

Construction is possibly the **biggest market in perspective** with great environmental sustainability associated (: *the only real carbon sink*).

There is an urge to **decarbonise** the construction sector and **insulate** the building stock, and hemp is the perfect solution.



EU Big corporates already have hemp products in their lines but are looking for more local raw materials to **scale up**.



Textile sector

The fashion sector is turning towards **more sustainable** materials and the policy framework will push this movement ahead.

The global value chain looks for **locally sourced** raw materials that ensure **resilience** and enhances **business security**.



EU has the **flax processing expertise** for long fibre production, and **short fibre** applications are being developed (cottonisation mostly done in India & China).



Fibre sector

Need for a mapping of the value chain

- **Few decorticators**
- **Need for developing new and clean retting technologies**

What the market asks:

- **More volumes** and **better quality**
- Long, cottonised, short fibre





Food sector

- Hemp can become a **major plant protein** for direct consumption and processed vegetarian food – **local, sustainable** and **healthy!**
- Hemp seeds contain **fibre, vitamins, minerals and unique essential fatty acid**
- Regulatory evolutions allow a **stable business environment** and incentivise **investments** in processing facilities
- Research in breeding will further develop the **triple use** (fibre / shivs + seeds + leaves for tea and extraction)



Cosmetic sector

CosIng, the Cosmetics Ingredients database is a non mandatory list of ingredients at EU level.

Today, we have listed different hemp products, including:

- *Leaf extracts*
- *CBD naturally derived and synthetic*
- *CBG (not specified)*
- *Roots extracts*





Feed sector

Feed is perfect for **organic feed** and highly sustainable (use of byproducts).

- **Maximum levels** for THC should be soon established (as the proposed ones by the EU Commission are too low).
- In the EU **hemp extracts** are considered feed **additives** (marketing authorisation required), while most of **other hemp products** are feed **materials** (compliance to EU regulation necessary).





What is an extract?

The **flowers and leaves** of an agricultural crop (***Cannabis sativa L.***) are used for the production of **extracts/CBD**



! Diluted in a vegetable carrier
(usually hempseed oil)





Extracts sector

CBD, most naturally abundant cannabinoids in the hemp plant (isolate, full spectrum extracts or synthetic) is considered (today) in the European Union as a **Novel Food** --> has not been consumed to a significant degree by humans in the EU before 15 May 1997

= NF Products must undergo an **authorisation** process, aimed at assessing their safety of use, before they are marketed.

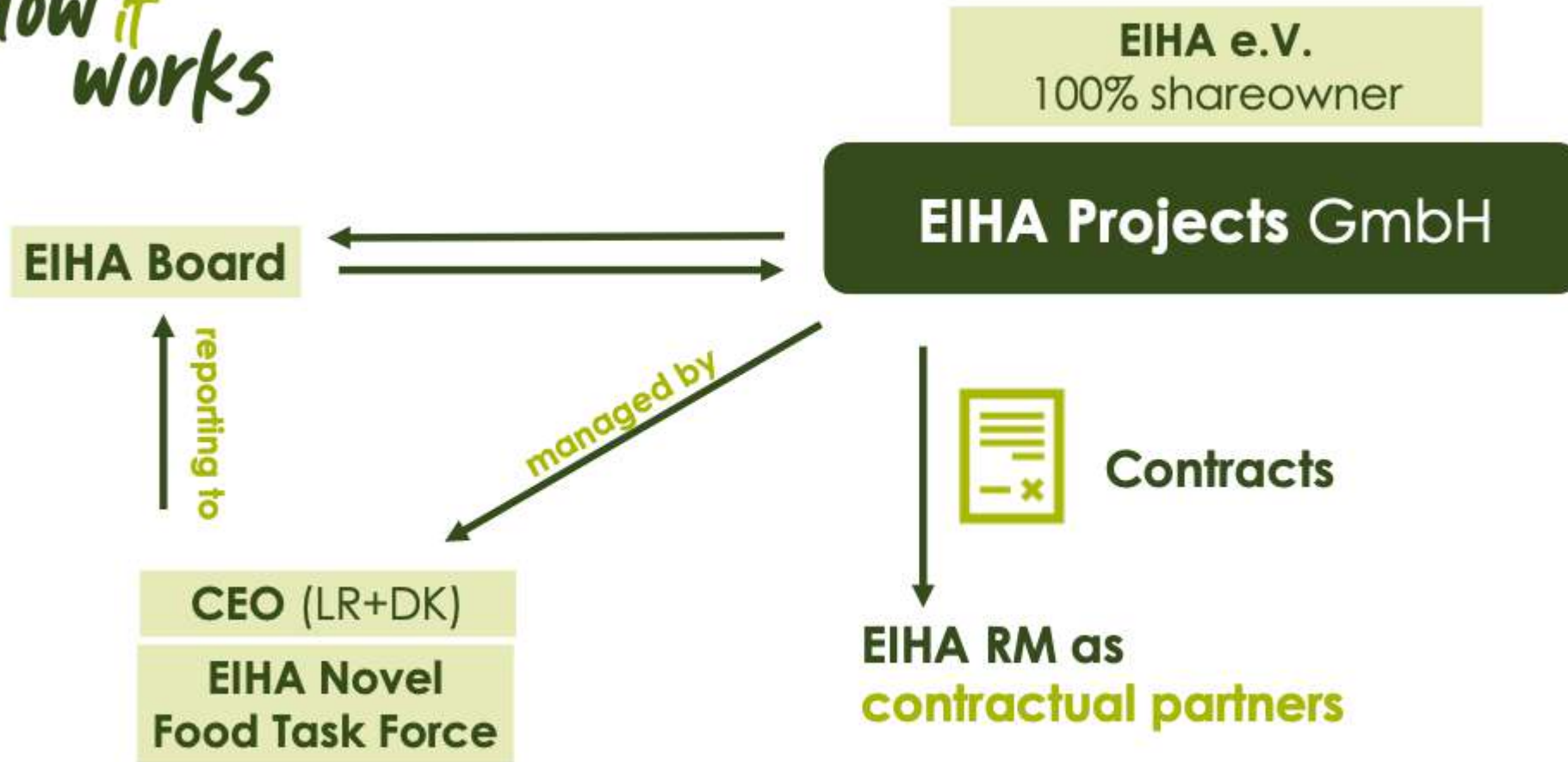
Fresh tox studies need to be submitted to EFSA (EU) and approved by the EU Commission



Novel Food Consortium

EIHA consortium for Novel food application

how it works





Novel Food Consortium

In the framework of the Novel Food Application the EIHA has achieved so far:

Tox study on **CBD isolate** and **full spectrum** on rats 1,9M€

- Objective: derive the **ADI**, the **NOAEL** and the **LOAEL** for **CBD**.
- Status: CBD isolate completed / full spectrum ongoing

THC clinical trial on humans 1,6M€

- Objective: derive a proper **NOAEL** and **LOAEL** for THC
- Status: to be started soon



Hemp food in the EU



Whole hemp seeds, untreated or germ-reduced



Hemp seeds, hulled, untreated or germ-reduced



Hemp seeds, hulled, roasted



Hemp Oil



Hemp Oil Refined



Hemp Oil Premium Green



Hemp Oil Premium Gold



Hemp protein 30



Hemp protein 50



Hemp protein 60



Hemp protein 70+80



Hemp flour



Hemp fibre



Hemp leaves



not-novel



THC limits in food in the EU

Max levels THC for all the European Union enter into force on **January 1st, 2023**



	Value	UF	Marketable up to
Seeds	3 mg/kg		4,5 mg/kg
Other dry products	3 mg/kg	ca. 50%	4,5 mg/kg
Hemp seed oil	7,5 mg/kg		11,25 mg/kg



Hemp in the EU Green Deal





Perfect for a green recovery!

- **Zero-waste** (flowers, seeds, leaves, stalk, roots)
- **Multipurpose crop** (nutritious food, textile, sustainable construction, biomaterials, fuel, heat, ...)
- **Environmental benefits** (soil, biodiversity and carbon storage in construction materials)



Environmental externalities

Clean air

1 ha = 8.9 to 13.4 tons of CO₂ captured.
As efficient as forests!

Healthy soils

- Little or no need for chemicals
- Ideal for organic and near surface water
- Produces large amounts of pollen (vital for bees) during period of floral scarcity

Biodiversity

- Optimal pioneer or rotation crop;
- Leaves provide natural soil cover, reducing water loss and erosion;
- Higher yields recorded in subsequent crops;
- Eliminates efficiently weeds;
- Removes heavy metals from the ground.



Investment and Hemp in rural areas

- **Contrast land abandonment**
- **Boost manufacturing and SMEs** (textile, sustainable construction, biomaterials)
- **Additional revenues for farmers** (hemp in rotation)
 - ✓ Raw material for **fiber** manufacture
 - ✓ Fishnets for **fishing** industry
 - ✓ **Bio-packaging** for food and juices
 - ✓ **Processed food** produced by Cooperatives and SMEs
 - ✓ Boost **bio-economy** value chain
 - ✓ Fight **land abandonment**
 - ✓ Attract **young farmers**



Conclusion

- **Optimism** about the future of the sector (*carbon storage, biobased products, plant based food*).
- Development of a *positive policy framework* for hemp:
 - Allow **whole plant approach** for more economic and environmental sustainability
- **Public policies** and **science support are still needed.**
- Additional **investments** oriented towards a **long term sustainable vision.**
- Fully develop and increase the number of **local supply chains** (pooling resources and cooperation).
- More **training** for farmers and **education** for consumers and companies



Thank you!

Webpage: eiha.org

Contact email: info@eiha.org



Hemp market in Poland (regulations)

17.09.2024

According to **Act on Counteracting Drug Addiction:**

- Hemp is a plant of the species *Cannabis sativa* L. in **which the sum of the contents of delta-9-tetrahydrocannabinol and tetrahydrocannabinol acid** (delta-9-THC-2-carboxylic acid) in the flowering or fruiting tops of plants from which the resin has not been removed does **not exceed 0,3% on a dry matter basis**; this sum shall be rounded to one decimal place.
- **The cultivation of hemp other than fibrous hemp is prohibited**, except where the cultivation of hemp other than fibrous hemp is carried out by research institutes supervised by the Minister of Agriculture. **Institutes may cultivate hemp other than fibrous hemp for the production of pharmaceutical raw material.**
- **Fibrous hemp may be grown for needs:** textile, chemical, pulp and paper, cosmetic, pharmaceutical, energy, seed and scientific research; breeding of hemp varieties, land remediation; for food, veterinary, feed, beekeeping, fertiliser purposes; for the production of composite materials, building materials and natural plant protection products.
- **Producer may also grow hemp for his own using for some purposes set out above.**

- **Producer that plan to grow hemp must be entered in the register of hemp producers.** Operators intending to purchase hemp from producers must also be entered in the register.
- **Registration in the register is made by the directors of the local branches of the National Centre for Agricultural Support** at the request of the operator, after the entity has met certain requirements.
- The **producer can grow** hemp i.a. if:
 - **has not been convicted** of illegal cultivation or harvesting of hemp other than fibrous;
 - **uses seeds of a certified category** within the meaning of Polish Act seed production (the Institute of Natural Fibres and Herbal Plant is the only one producer of this kind of seeds in Poland).



The application for entry in the register of hemp producers contains, inter alia, the following information:

- basic data about the applicant (name or company name, address);
- location of the planned cultivation and area in ha;
- the purpose of cultivation, which must be consistent with the objectives described in the Act on Counteracting Drug Addiction;
- a statement that he has not been convicted of a drug-related offence;
- information on the variety of hemp;
- a copy of the purchase invoice for certified seeds.



- **The entry in the register is made only once before starting the cultivation**, and if the information in the register changes, e.g. in next years, the operator must inform the National Support Centre for Agriculture about changes.
- **The National Centre for Agricultural Support controls the producers and buyers entered in the register of hemp.**
- If the operator obstructs the inspection or the National Centre for Agricultural Support finds that hemp may be non-fibrous hemp, the police must be informed. Penalties are also introduced for operators that grow or purchase hemp contrary to the provisions of the Act on Counteracting Drug Addiction.
- If the operator ended cultivation of hemp, he is removed from the register of hemp.
- The purchasers of hemp is obliged to provide the National Centre for Agricultural Support annually information on contracts concluded for the supply of hemp, including information on the producer from which the hemp was purchased.



Thank you for your attention!



Ministerio
**de Ganadería,
Agricultura y Pesca**



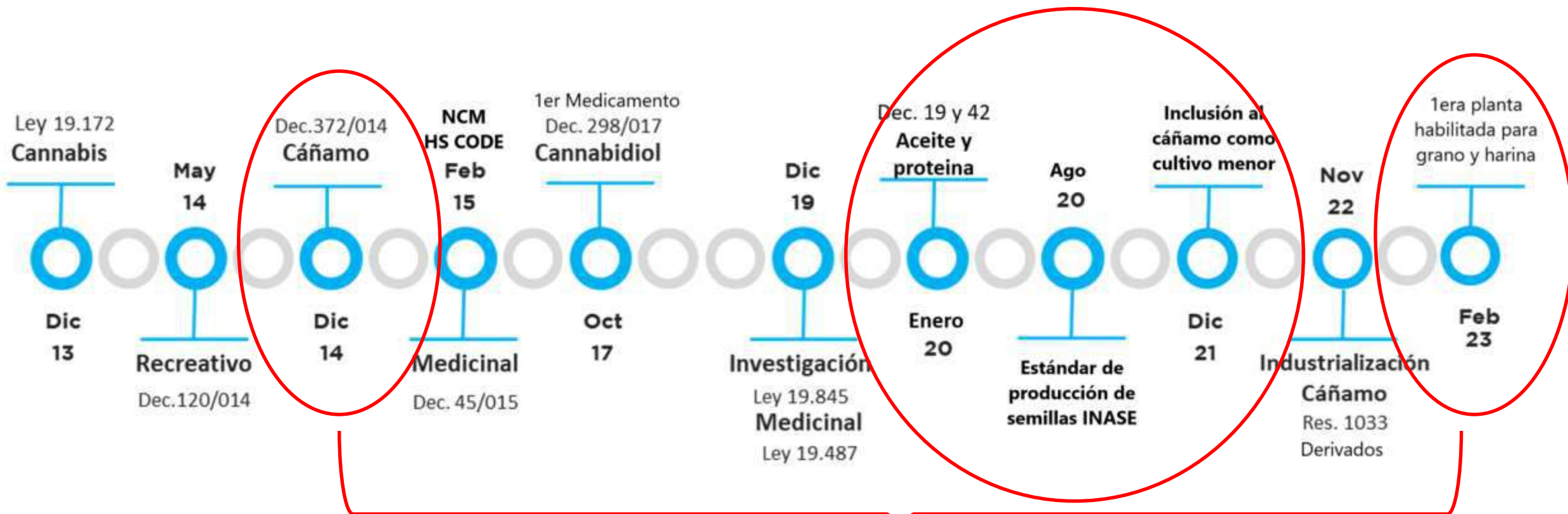
Ministerio
**de Ganadería,
Agricultura y Pesca**

Cáñamo en el Uruguay
Aspectos jurídicos y fitosanitarios
2013-2023

Ing. Agr. Sergio Vázquez
Dirección General de Servicios Agrícolas



Cronología de la normativa



9 años



Cannabis en Uruguay

2 dimensiones para su definición

Por su contenido de THC:

Cañamo THC \leq 1%

Vs

Marihuana THC $>$ 1%

Por sus diferentes **finés o usos:**

- a) Investigación Científica o uso Medicinal
- b) Industrial (granos, aceite, fibras) y novel foods (derivados no psicoactivos)
- c) Recreativo o adulto. (Marihuana)



Ministerio de Ganadería, Agricultura y Pesca

Institucionalidad del cannabis

USO MEDICINAL/INVESTIGACION CIENTIFICA



IRCCA
INSTITUTO DE REGULACIÓN Y CONTROL DEL CANNABIS

INSTITUTO DE REGULACIÓN Y CONTROL DEL CANNABIS

Ministerio de Salud Pública

Ministerio de Industria, Energía y Minería

Ministerio de Desarrollo Social



USO INDUSTRIAL (cáñamo)

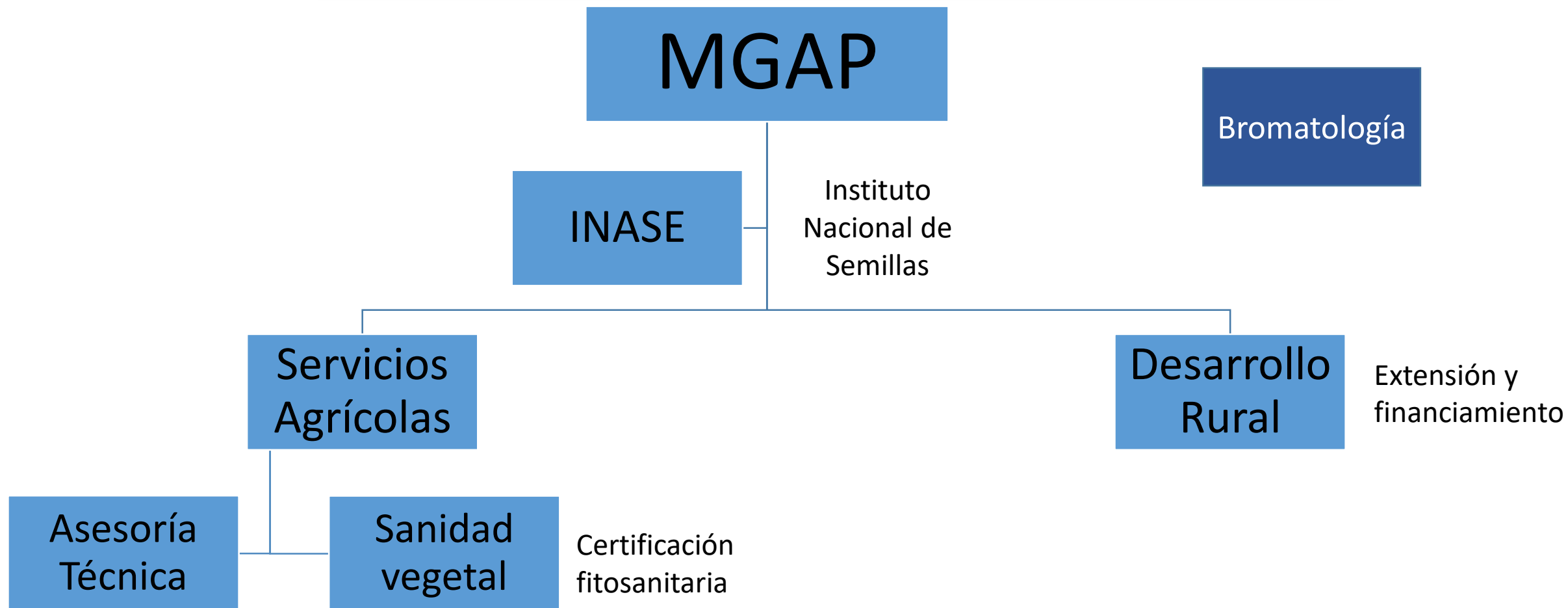


Ministerio de Ganadería, Agricultura y Pesca

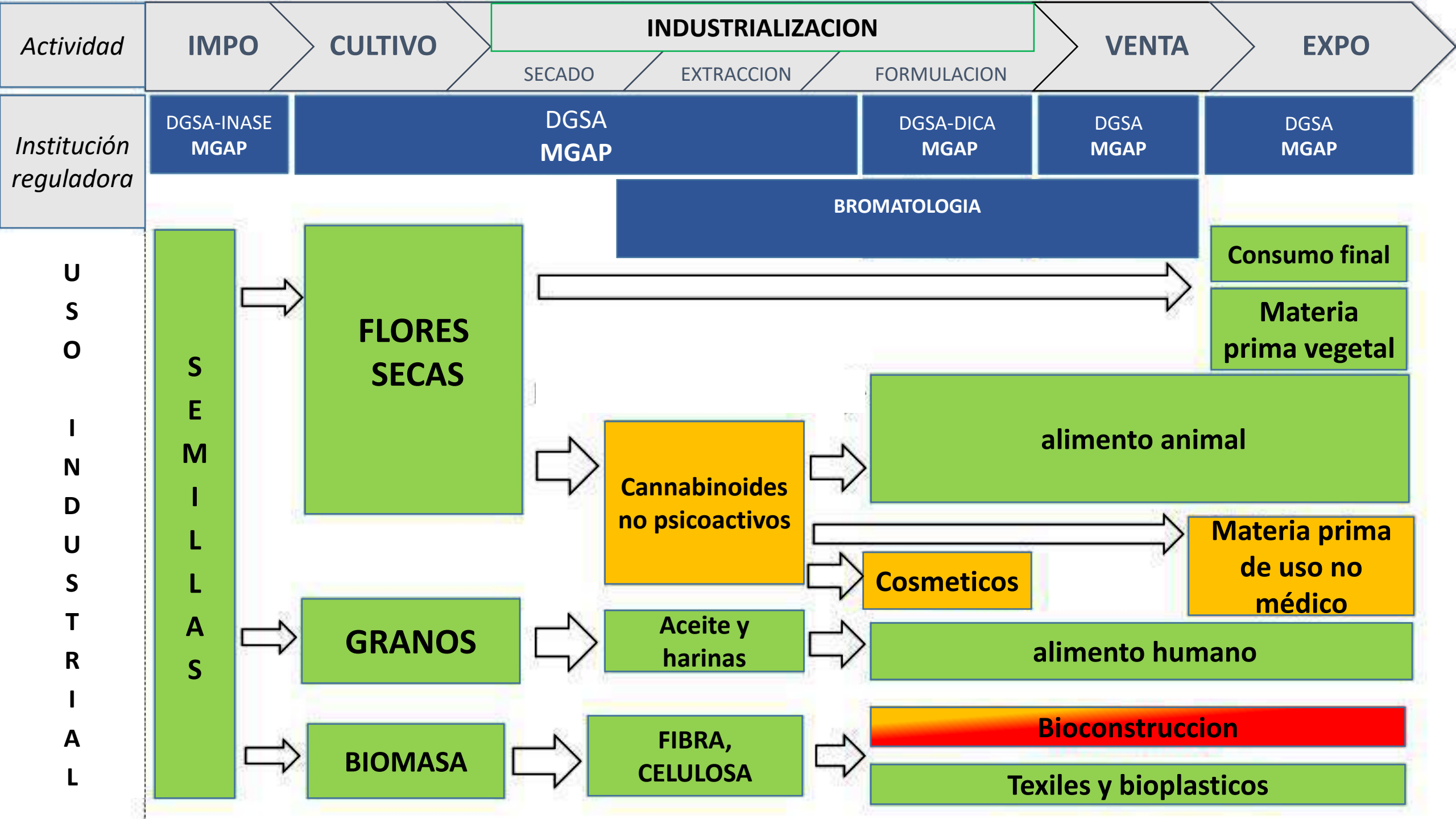




Organismos con intervención en cáñamo



Licencias de producción





Controles y costos para operar con cáñamo

- Declaración de área, variedad, sitio y destino de la producción.
- Importación y uso de semillas registradas en INASE
- Declaración de stock 3 veces por año (Abril-Agosto-Diciembre)
- Ing. Agrónomo como responsable del cultivo
 - Hasta 100 hectáreas: SIN COSTO
 - De 100 a 500 hectáreas: 150 dólares
 - > de 500 hectáreas: 380 dólares





Solicitud Guía de Transporte de Cáñamo Industrial

Número de Guía: 20929 , AUTORIZACIÓN VIGENTE Número de Expediente: 2020/7/4/1/3233 / 2020

PROPIETARIO DEL MATERIAL

Nombre/ Razon Social:	Hemp for Health HHCO, Hemp for Health Company SAS
Nro RUT:	218758790010
Telefono:	099251611
Correo Electrónico:	hempforhealthcomp@gmail.com

RESPONSABLE TÉCNICO

Nombres:	Carlos Javier
Apellidos:	Cillut Cecilia
Telefono:	099863477

ORIGEN 1

Departamento:	Salto
Localidad:	SALTO
Calle/Ruta:	Av. Garibaldi
Número/Km:	S/N Entre Ferreira A.
Latitud:	-31,3681
Longitud:	-57,9633
Otros Datos:	Venta

Plantas y Sus Partes - Género Cannabis

Fecha de emisión: 28/6/2021

Válido por 10 días hábiles

Código

Verificación:



Sergio Vázquez Barrios
Departamento Asistencia Técnica
Dirección General de Servicios
Agrícolas





Desafíos para los próximos años

- Investigación genética para generar variedades de grano y fibra adaptadas a sudamérica.
- Producción de semilla local para independizarnos de la importación.
- Incluir al cáñamo en plan nacional de evaluación de cultivares.
- Trazabilidad de toda la cadena para el uso del sistema financiero.
- Escala mínima necesaria para la industrialización de la fibra.



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Dirección General de SERVICIOS AGRÍCOLAS

Mas información:

Mail: cannabisnp@mgap.gub.uy

<https://www.gub.uy/ministerio-ganaderia-agricultura-pesca/cannabis-no-psicoactivo>



POLISH **HEMP** PROGRAM

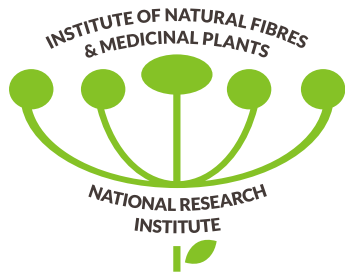
a tool for scientific institute's IPs international commercialization

Witold Czeszak

Co-founder and Head of Polish Hemp Program

Head of Technology Transfer Department

Uruguay, 17.09.2024



Institute of Natural Fibres and Medicinal Plants – National Research Institute



- **90 years experience in hemp and flax**
- **Industrial hemp varieties with unique characteristics**
- **Highly qualified scientific and technical Staff**
- **Technologies, know-hows, patents**
- **Laboratories and scientific infrastructure**
- **Capability, know-how and experience in seed multiplication**



POLISH HEMP PROGRAM

Sowing seed production (licencing)

Technology Transfer / Advisory

Mowing service

Grain/Fiber/Hurd trading

Laboratory tests

R&D projects



Worldwide presence



Activity in South America



www.ihempolutions.com



Regional context

2022-2023 Validation Trials in Argentina and Uruguay

- 20 locations with 5000 microplots
- Testing 30 varieties
- The best performers were Polish Industrial Hemp varieties
- Henola – grain, Biało-brzeskie – fiber

2023 – 2024 Macroplots Trials in Argentina and Uruguay

- Licencing agreements
- Distribution agreements
- Starting reproduction of sowing seed to be more affordable for local farmers
- Spreading in Argentina and Uruguay knowledge about hemp agronomy
- Visit of Argentinian officials in Poland
- Active role of Adam Ryszka from Polish Embassy

2024 – 2025 Commercial Production

- Workshop in Poland in September 2024



Uruguay opportunities

1. Potential for multiplication PHP varieties
2. Interesting location in terms of expansion to Brazil (sowing seed and grain)
3. Infrastructure for processing hemp grain and export to UE
4. Hemp2Fuel project (**project No. ART_X_2023_1_176611**)
 - National government project – Uruguay green bond
 - Support from Institute
 - Transition from sugar cane to hemp in 2G biofuel production
5. Potential for production of insulation products for local and regional demand (based on EU licence)
6. 2024/2025 IHS is going to plant 500 ha (commercial field) and 50 ha (multiplication field)





POLISH **HEMP** PROGRAM



Let's cooperate !!!

Thank you