



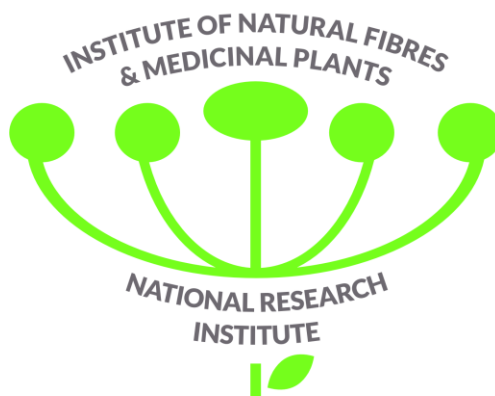
## INSTYTUT WŁÓKIEN NATURALNYCH I ROŚLIN ZIELARSKICH Państwowy Instytut Badawczy

ul. Wojska Polskiego 71 B, 60-630 Poznań, Polska KRS 0000321899 NIP 7811830940 REGON 301027411  
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# NEW SERVICE AND RESEARCH OFFER

## INSTITUTE OF NATURAL FIBRES AND MEDICINAL PLANTS NATIONAL RESEARCH INSTITUTE



2025



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## 1. Basic details about the Institute

A multidisciplinary research unit, the Institute of Natural Fibres and Medicinal Plants is a National Research Institute that carries out extensive studies on the extraction and processing of natural fibrous and herbal raw materials. The Institute collaborates with a wide variety of research institutions worldwide, conducts a variety of national and international research projects, and serves the needs of the food industry, pharmacy, medicine, construction, environmental protection, and agriculture.

## 2. Historical context and global status

Since the Institute of Natural Fibres (IWN) and the Institute of Medicinal Plants (IRiPZ) in Poznań merged on January 1, 2009, the Institute has been functioning under its current name. Established on March 15, 1930, the Linen Central Experimental Station (LCSD) in Vilnius was the precursor to the IWN. The IRiPZ was founded in Poznań on September 5, 1947, under the name of the State Scientific Institute of Medicinal Plant Raw Materials (later the Institute of the Herbal Industry).

## 3. Science's potential and accomplishments

The Institute receives a category A rating from the state for the quality of its scientific endeavours.

Qualified scientific and research personnel, including full professors, habilitated doctors, doctors, and master's degree holders, are employed by the Institute. These personnel are experts in biology, biotechnology, chemistry, agriculture, textiles, materials science, pharmacy, and medicine. They include both experienced and young scientists.

INF&MP-NRI has a technology transfer department, a scientific publishing house, and departments that support the Institute's research and implementation activities. It also has specialized laboratories and research departments (in the experimental and service scope) and built research infrastructure in Poznań, Plewiska, Pętkowo, and Stęszew.

In 2024, 51 scientific articles were published by INF&MP-NRI employees, with a portion of these articles appearing in national and international journals.



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## 4. Service offerings and research pursuits

### a) Scientific research and consulting

Principal area of investigation and advancement:

- Agrobiology and biotechnology: molecular biology, *in vitro* plant cultures, human cell cultures, and bioprocessing.
- The development of novel fibre and herbal plant varieties, their agronomic techniques, and preliminary processing; conservation breeding; and banking.
- The technologies for the acquisition and processing of natural fibres, as well as their modifications for both textile and non-textile applications.
- Innovative applications for fibre and herbal plant varieties that produce oil (dietary and medicinal products).
- Biocomposites derived from plant-based raw materials and thermoplastics or biodegradable polymers.
- Specialized applications of lignocellulosic raw materials and polymers through chemical modification.
- Utilization of bacterial cultures and herbal plants in the production of biofeed.
- Microbiological testing on raw materials, technical materials, as well as plant and beekeeping products.
- Composites based on lignocellulosic raw materials, bonded with unconventional binders.
- Fire-retardant composites resistant to long-term exposure to high temperatures.
- Nanotechnology – carbon nanotubes, polymer nanofibres, functionalization of biomaterials with nanoparticles.
- Flammability, biodeterioration of materials, bio- and fire-retardants.
- Comprehensive research on biologically active substances in terms of quality assessment, development, and validation of analytical methods as well as stability testing.
- Research on herbal plants and products, as well as plant-based medicinal products, cosmetics, dietary foods, and functional foods.
- Development of industrially polluted regions for the cultivation of non-food plants.
- Production of plants, bioproducts, and seed material.



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## Consulting

- Delivering comprehensive agricultural advice, consultations, opinions, and expertise on plant-based products and fibres to state and local government organizations, businesses, the Agricultural Advisory Centre, and local advisory centres within the Institute's scope of activity.

## b) Commercialization of knowledge and services

### 1 SERVICES IN ACCREDITED LABORATORIES

#### Flammability Laboratory



Flammability Laboratory of INF&MP-NRI is accredited by the Polish Accreditation Centre, as evidenced by Certificate No. **AB 225**.

- Accredited methods:
  - utilizing the radiating plate method, the ignitability of floors is evaluated with a single flame;
  - testing the ignitability of building products using a single flame;
  - evaluation of flame propagation and ignitability in flat textiles;
  - evaluating the ignitability and spread of flame on textiles, including curtains and drapes;
  - testing the ignitability of upholstered systems: method A – cigarette, method B – match.
- Analysis of combustion processes using the cone calorimeter method: ignition time, heat release rate, total heat released, combustion heat, mass loss rate, smoke generation (specific extinction), carbon monoxide and dioxide.
- Determination of combustion process parameters by pyrolysis and combustion microcalorimeter method: ignition temperature, heat release rate, heat of combustion in a very short time for samples of 1–50 mg.



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	Textile Laboratory
	<p>Textile Laboratory of INF&amp;MP-NRI is accredited by the Polish Accreditation Centre, as evidenced by Certificate No. <b>AB 225</b>.</p> <p>Methods certified by Polish Centre for Accreditation:</p> <ul style="list-style-type: none"> <li>– yarns – determination of single-end breaking force and elongation at break using constant rate of extension (CRE) tester acc. to PN-EN ISO 2062:2010;</li> <li>– yarns – determination of linear density (mass per unit length) by the skein method acc. to PN-EN ISO 2060:1997;</li> <li>– flat textiles – determination of maximum force and elongation at maximum force using the strip method acc. to PN-EN ISO 13934-1:2013-07 (fabrics), PN-EN ISO 2973-3:2023-11 (non-woven fabrics);</li> <li>– flat textiles – determination of mass per unit area acc. to PN-ISO 3801:1993 (woven fabrics), PN-P-04613:1997 (knitted fabrics), PN-EN ISO 9073-1:2023-11 (non-woven fabrics);</li> <li>– flat textiles – determination of number of threads in woven fabrics acc. to PN-EN 1049-2:2000 and number of stitches in knitted fabrics acc. to PN-EN 14971:2007;</li> <li>– flat textiles – determination of the abrasion resistance of fabrics by the Martindale method – Determination of specimen breakdown acc. to PN-EN 14465:2005 + A1:2007 (upholstery fabrics), PN-EN ISO 12947-2:2017-02;</li> <li>– flat textiles – determination of fabric propensity to surface pilling, fuzzing or matting – Modified Martindale method acc. to PN-EN ISO 12945-2:2021-04, PN-EN ISO 12945-4:2021-04;</li> <li>– flat textiles – determination of permeability of fabrics to air acc. to PN-EN ISO 9237:1998;</li> <li>– flat textiles – Solar UV protective properties – method of test for apparel fabrics acc. to PN-EN 13758-1+A1:2007.</li> </ul>
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	Textile Laboratory
	<ul style="list-style-type: none"> <li>– bast fibres – determination of linear density – gravimetric method acc. to PN-EN ISO 1973:2022-03;</li> <li>– bast fibres – determination of indices at static tension acc. to PN-P-04676:1986;</li> <li>– bast fibres – determination of the impurities content acc. to the decree of the Minister of Agriculture and Rural Development of 5th May 2011;</li> <li>– bast fibres - determination of length acc. to BN-7511-16:1986, PN-ISO 6989:2000;</li> <li>– yarns – determination of twist and of direction of twist in yarns acc. to PN-EN ISO 2061:2015-09, PN-P-04652:1997;</li> <li>– textiles – determination of quantitative chemical analysis of fibres mixtures, acc. to PN-P-04847 (series of the standards);</li> <li>– textiles – hygroscopicity acc. to PN-P-04635:1980;</li> <li>– textiles – ability to water sorption (drop method) acc. to JIS 1090:1990;</li> <li>– flat textiles – measurement of thermal resistance and water-vapour resistance under steady-state condition acc. to PN-EN ISO 11092:2014-11;</li> <li>– flat textiles – determination of stiffness acc. to PN-EN ISO 9073-7:2025-05;</li> <li>– flat textiles – determination of the recovery from greasing of a horizontally folded specimen by measuring the angle of recovery acc. to PN-EN ISO 2313-1:2021-12;</li> <li>– flat textiles – determination of dimensional change in washing and drying acc. to PN-EN ISO 5077:2011;</li> <li>– flat textiles – test for colour-fastness – colour fastness to rubbing acc. to PN-EN ISO 105-X12:2016-08;</li> <li>– textiles – determination of knitted/woven fabric weave;</li> <li>– microscope analysis of identification of textile fibres by ZEISS Axioscope 5 acc. to PN-P-04604:1972;</li> <li>– Scanning Electron Microscope (SEM) analysis (fibre identification, evaluation of cross-section: shape, fibre diameter, area of cross-section, evaluation of fibres surface, fibre damage and modification);</li> <li>– analysis of the surface of various samples in terms of elemental composition and/or chemical characteristics performed using an EDS (Energy Dispersive Spectroscopy) system integrated with Scanning Electron Microscope (SEM);</li> </ul>



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	<ul style="list-style-type: none"> <li>– determination of surface free energy (SFE) of various samples using the Wilhelmy method (method based on the ability to wet the surface) or the Sessile Drop method (method of analysing the shape of a droplet deposited on surface).</li> </ul>
	<b>Laboratory of Physiological Influence of Textiles on Human Body</b>
	<ul style="list-style-type: none"> <li>– determination of physiological comfort parameters;</li> <li>– user assessments of clothing comfort.</li> </ul>
	<b>Laboratory of Chemical Evaluation and Ennobling of Fibrous Raw Materials</b>
	<ul style="list-style-type: none"> <li>– determination of waxes and fats content in fibre acc. to BN-7501-10:1986;</li> <li>– determination of lignin content in fibre acc. to BN-7501-11:1986;</li> <li>– determination of cellulose content in fibre acc. to PN-P-50092:1992;</li> <li>– determination of hemicellulose content in fibre acc. to BN-7529-02:1977;</li> <li>– gravimetric determination of pectin content in fibre in accordance with a method developed at INF&amp;MP-NRI;</li> <li>– determination of degree of polymerization by viscosimetric method acc. to BN-7529-01:1986,</li> <li>– determination of essential oil content acc. to Pharmacopoeia Polska ed. VII (2006), pp. 325-326;</li> <li>– determination of fibre content in varieties, strains, and bast yields of fibrous plants using the osmotic degumming method;</li> <li>– thermal stability analysis of textile and semifinished products using TGA method;</li> <li>– evaluation of released gases during the pyrolytic decomposition of semifinished products and textile products using the combined TGA-FTIR technique;</li> <li>– infrared examination of the surface layer of semifinished products and textile products using the ATR/KBr-FTIR method;</li> <li>– flax and hemp microfibers: chemical modification service.</li> </ul>
	<b>Laboratory of Processing Technologies of Fibrous Plant</b>
	<ul style="list-style-type: none"> <li>– quality assessment of flax and hemp straw, including the determination of total and technical length, thickness as well as long and short fibre content acc. to PN-P-80103:1996, PN-P-80104:1997, PN-P-80105:1998, PN-P-80098:1999, PN-ISO 2370:1999;</li> <li>– quality assessment of hemp and flax shives, including the determination of usable shive content, contamination, moisture, and bulk density acc. to PN-P-80102:1996, PN-P-04601:1991;</li> <li>– <i>in-situ</i> examination of plant root systems;</li> <li>– measurement of plant photosynthetic activity.</li> </ul>
	<b>Laboratory of Natural Dyeing</b>
	<ul style="list-style-type: none"> <li>– colour testing and dyeing using natural sources, such as plants and animals;</li> </ul>



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	<ul style="list-style-type: none"> <li>– workshops and classes covering natural dyeing techniques.</li> </ul>
	<b>Department of Bioproduct Engineering</b>
	<ul style="list-style-type: none"> <li>– development and production of composites based on thermoplastic/ biodegradable polymers and various types of fillers – natural fibre, nanofillers, dyes;</li> <li>– testing the resistance of technical materials to soil microorganisms and mould fungi for institutions and companies in the textile, construction, packaging, and transport sectors;</li> <li>– evaluation of the purity and microbiological activity of raw materials, plant semifinished products, dietary supplements, food products, beekeeping, and cosmetic preparations;</li> <li>– flammability and fire properties testing for the certification of construction products, such as floor coverings, textile products (curtains, blinds), and upholstered systems;</li> <li>– comprehensive fire safety characteristics of materials using a cone calorimeter, pyrolysis and combustion microcalorimeter - flammability, heat release, smoke generation, toxicity of combustion products; including fire-resistant materials;</li> <li>– prototyping of products using the 3D printing method;</li> <li>– research and analysis of rheological properties of polymers and composites.</li> </ul>
	<b>Laboratory of Microbiology</b>
	<ul style="list-style-type: none"> <li>– assessment of the microbiological activity and resistance of lignocellulosic raw materials, textiles, composites, and plastics;</li> <li>– assessment of the antimicrobial properties and microbiological purity of fabrics;</li> <li>– evaluation of the biological activity of substances of natural and synthetic origin on selected groups of microorganisms;</li> <li>– detection of pathogenic microorganisms and toxin-producing moulds in herbal medicines and raw materials;</li> <li>– assessment of the microbiological purity of personnel, air, water, production equipment, and usable surfaces in medicinal product manufacturing facilities;</li> <li>– Expert opinions: <ul style="list-style-type: none"> <li>• antimicrobial activity of raw materials, herbal medicines, and dietary supplements;</li> <li>• bee products: chemical composition, biological properties, therapeutic activity, dosage, and adverse effects.</li> </ul> </li> </ul>
	<b>Laboratory of Waste Management – Bioeconomy Department</b>
	<ul style="list-style-type: none"> <li>– determination of the energy value of biomass;</li> <li>– evaluation of the energy yield from a single hectare of crop;</li> <li>– lectures concerning production and processing of agricultural biomass and energy crops.</li> </ul>
	<b>Laboratory of Silkworm Breeding and Mulberry Cultivation – Bioeconomy Department</b>
	<ul style="list-style-type: none"> <li>– required level of expertise for the breeding of the mulberry silkworm (<i>Bombyx mori</i> L.);</li> </ul>



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	<ul style="list-style-type: none"> <li>– a technology for the cultivation of mulberries (<i>Morus alba</i> L.) for a variety of applications, including the production of silk, energy, and herbal products;</li> <li>– sale of cocoons from the mulberry silkworm (<i>Bombyx mori</i> L.);</li> <li>– educational workshops regarding silk production.</li> </ul>
	<b>Laboratory of Plant <i>In Vitro</i> Culture – Biotechnology Department</b>
	<ul style="list-style-type: none"> <li>– development of micropropagation protocols for fibre and medicinal species;</li> <li>– propagation of plant material, including provided materials, and production of plantlets i. a.: <i>Cannabis sativa</i> L., <i>Linum usitatissimum</i> L., <i>Stevia rebaudiana</i> Bertoni, <i>Salvia</i> sp., <i>Epilobium angustifolium</i> L., <i>Valeriana officinalis</i> L., <i>Echinacea purpurea</i> L., <i>Urtica dioica</i> L. <i>Whitania somnifera</i> (L.) Dunal.</li> </ul>
	<b>Laboratory of Agrobiology – Biotechnology Department</b>
	<ul style="list-style-type: none"> <li>– evaluation of the qualitative and quantitative composition of plant regenerative and protective biopreparations in the presence of stress;</li> <li>– macroscopic and microscopic assessment of plant material after exposure to endogenous and exogenous components/substances <i>in vitro/ex vitro</i>;</li> <li>– assessment of the germination parameters of herbal seeds in the presence of biostimulants;</li> <li>– assessment of the physiological condition of plants during foliar and/or root application of biomixtures (monitored drips).</li> </ul>
	<b>Department of Breeding and Botany</b>
	<ul style="list-style-type: none"> <li>– taxonomic certification of herbal raw material;</li> <li>– providing training to seed inspection personnel in order to conduct official field qualifications of fibre and herbal plants;</li> <li>– educational and didactic workshops in the INF&amp;MP botanical garden;</li> <li>– training for employees of agricultural advisory centres in the field of botany and breeding of fibre and herbal plants.</li> </ul>
	<b>Department of Practical Agronomy</b>
	<ul style="list-style-type: none"> <li>– trainings on methods of cultivation and protection of fibrous and medicinal plants;</li> <li>– trainings for WIORIN Inspectors - qualifiers of seed plantations of flax and fibre hemp;</li> <li>– assessment of the phytotoxicity and efficacy of plant protection products in the cultivation of medicinal and fibrous plants;</li> <li>– plant susceptibility to fungi of the fusarium genus was assessed in laboratory, pot, and field settings.</li> </ul>
	<b>Department of Stem Cells and Regenerative Medicine</b>



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	<ul style="list-style-type: none"> <li>– assessment of the biocompatibility of materials using <i>in vitro</i> models;</li> <li>– assessment of the cytotoxicity of substances and chemical compounds performed using <i>in vitro</i> models;</li> <li>– assessment of the bioavailability of nutrients and pharmaceuticals using <i>in vitro</i> models;</li> <li>– cellular sorting for molecular analyses and cell culture.</li> </ul>
	<b>Department of Pharmacology and Phytochemistry</b>
	<ul style="list-style-type: none"> <li>– quantitative and qualitative analysis of active substances in plants conducted using the following methods: UPLC, GC, ASA, spectrophotometry, and densitometry. Phytochemical analysis of plant substances and their products, as well as herbal medicinal products, includes the standardization of plant substances, identification, and confirmation of their identity, analysis of related substances and impurities in active substances, identification of metals harmful to health and heavy metals, identification of essential oils and fatty substances, physicochemical tests of plant substances, and fatty acid profile testing;</li> <li>– product stability testing;</li> <li>– evaluation of pharmaceutical raw materials and medicinal products to ensure that they meet the requirements and specifications of the Pharmacopoeia;</li> <li>– development of analytical methods and their validation;</li> <li>– issuing opinions on the safety and qualification of foodstuffs that require notification to the Chief Sanitary Inspector, including dietary supplements and foodstuffs for special medical purposes (Basis of activity: Regulation of the Minister of Health of 23 March 2011 (Article 31, paragraph 6 of the Act of 25 August 2006 on Food Safety and Nutrition, Journal of Laws of 2010, No. 136, item 914, No. 182, item 1228 and No. 230, item 1511);</li> <li>– issuing assessments regarding the safety of the use of various plant raw materials and their derivatives in food;</li> <li>– collaboration with the Chief Sanitary Inspectorate and the European Commission's working group on novel foods in the area of food safety assessment and qualification of novel foods.</li> </ul>
	<b>Department of Seed Research and Processing</b>
	<ul style="list-style-type: none"> <li>– Contract manufacturing and pressing of linseed oil for technical, pharmaceutical, and food applications: <ul style="list-style-type: none"> <li>• production technology development, including documentation for implementation and specifications for the finished product;</li> </ul> </li> <li>– Development of functional product formulations (food): <ul style="list-style-type: none"> <li>• preparation of concepts and documentation for functional products, with a particular focus on cereal products and those that contain added oilseeds (e.g., sunflower, hemp);</li> <li>• production technology development, including documentation for implementation and specifications for the finished product;</li> </ul> </li> <li>– Development of dietary supplement formulations and concepts: comprehensive support for the design of dietary supplements;</li> </ul>



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	<ul style="list-style-type: none"> <li>• development of an action concept and the selection of active ingredients;</li> <li>• development of formulations in a variety of forms, such as liquids and powders;</li> <li>• documentation compilation for the Chief Sanitary Inspectorate (GIS) supplement submission, which encompasses specifications and quality declarations;</li> </ul> <p>– Development of cosmetic formulations and their manufacturing through the utilization of vegetable oils.</p> <p>Producing cosmetics that contain oils, particularly hemp and linseed. In this area, we offer:</p> <ul style="list-style-type: none"> <li>• creating formulas for serums, gels, balms, and creams;</li> <li>• selecting active ingredients and preservatives in compliance with relevant legal requirements;</li> <li>• preparation of full implementation documentation, including quality specifications and support in preparing safety data sheets;</li> <li>• support in selecting, packaging, and labelling.</li> </ul> <p>Packaging services: cosmetics or dietary supplements in 100 ml containers, such as:</p> <ul style="list-style-type: none"> <li>• packaging selection (assistance in choosing packaging, such as PET or glass);</li> <li>• pilot production and trial batch preparation.</li> </ul>
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### 3. RESEARCH INFRASTRUCTURE

Research infrastructure database is available on the websites:

<https://www.iwnirz.pl/oferta>

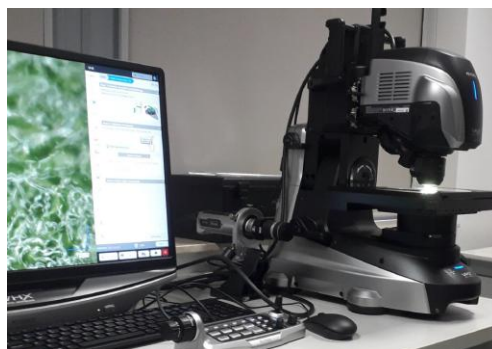
<https://www.iwnirz.pl/krajowy-plan-odbudowy>

- <https://www.iwnirz.pl/pracownia-innowacji-iwnirz-pib>



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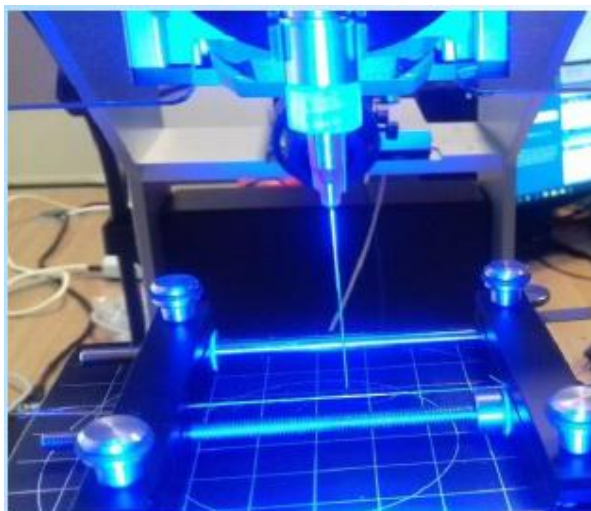
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## 4. SALES PROGRAMS

### POLISH HEMP PROGRAM

<https://programkonopny.pl/>

#### 1. Sales of sowing seed

We provide superior and qualified sowing seeds of the industrial hemp varieties Białobrzeskie, Tygra, Henola, and Rajan.

#### 2. Contracting

Based on a contract agreement with the Institute of Natural Fibres and Medicinal Plants, we provide farmers with the opportunity to cultivate Polish hemp varieties for sowing seed as part of the Polish Hemp Program.

#### 3. Products and services

Industrial products and food products of superior quality are available for purchase. A team of specialists who are highly qualified to provide laboratory services is available to you.

#### 4. Hemp varieties

Our selection comprises four distinct varieties: Białobrzeskie, Tygra, Henola, and Rajan. Institute of Natural Fibres and Medicinal Plants is the source of all four varieties..

#### 5. Hemp Cultivation

Our team comprises the most accomplished specialists in the cultivation of fibrous hemp varieties of IWNIRZ in Poland. If you wish to achieve a satisfactory yield, we recommend that you review our guide and reach out to us.

#### 6. Purchase of technology

We provide patented solutions, technologies, and know-how that have been developed at the Institute of Natural Fibres and Medicinal Plants for the treatment and utilization of hemp fibre.

Chief of PHP: Witold Czeszak M.Sc.



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## HERBAL PROGRAM

Presently, the Institute cultivates 21 distinct herb varieties.

The program provides processing companies and individual agricultural producers with the opportunity to purchase and produce certified herbal seed. In addition, the program is designed to disseminate the findings of scientific and implementation research conducted at the Institute, provide substantive support and advice to local agricultural producers, and popularize knowledge about medicinal and spice plants.

The implementation of Herbal Program is designed to not only advance herbalism in Poland, but also to enhance the availability of high-quality seed from native herbal varieties on the domestic market and provide professional support to the entire industry. This guarantee is provided by the Institute of Natural Fibers and Medicinal Plants in Poznań.

Varieties of herbal plants available for sale:



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<b>BAZYLIA POSPOLITA</b> ( <i>Ocimum basilicum</i> L.)	<b>KASIA variety, WALA variety</b>
<b>CZĄBER OGRODOWY</b> ( <i>Satureja hortensis</i> L.)	<b>SATURN variety</b>
<b>DZIURAWIEC ZWYCZAJNY</b> ( <i>Hypericum perforatum</i> L.)	<b>TOPAZ variety</b>
<b>GLISTNIK JASKÓŁCZE ZIELE</b> ( <i>Chelidonium maius</i> L.)	<b>CYNOBER variety</b>
<b>JEŻÓWKA PURPUROWA</b> ( <i>Echinacea purpurea</i> Moench.)	<b>IDA variety</b>
<b>KMINEK ZWYCZAJNY</b> ( <i>Carum carvi</i> L.)	<b>KOŃCZEWICKI variety</b>
<b>KOZŁEK LEKARSKI</b> ( <i>Valeriana officinalis</i> L.)	<b>POLKA variety</b>
<b>LUBCZYK OGRODOWY</b> ( <i>Levisticum officinale</i> Koch.)	<b>AMOR variety</b>
<b>MAJERANEK OGRODOWY</b> ( <i>Origanum majorana</i> L.)	<b>MIRAŻ variety</b>
<b>MALWA CZARNA</b> ( <i>Althea rosea</i> Cav. var. <i>nigra hort.</i> )	<b>CZARNA MAŃKA variety</b>
<b>OSTROPEST PLAMISTY</b> ( <i>Silybum marianum</i> (L.) Gaertn.)	<b>SILMA variety</b>
<b>PAPRYKA ROCZNA</b> ( <i>Capsicum annuum</i> L.)	<b>WULKAN variety</b>
<b>RUMIANEK POSPOLITY</b> ( <i>Chamomilla recutita</i> (L.) Rausch.)	<b>DUKAT, MASTAR, PROMYK, ZŁOTY ŁAN varieties</b>
<b>SZAŁWIA LEKARSKA</b> ( <i>Salvia officinalis</i> L.)	<b>BONA variety</b>
<b>TYMIANEK WŁAŚCIWY</b> ( <i>Thymus vulgaris</i> L.)	<b>SŁONECZKO variety</b>

## SEEDLING PRODUCTION

The Institute facilitates the production of seedlings through micropropagation methods, which include *Cannabis sativa* L., *Linum usitatissimum* L., *Stevia rebaudiana* Bertoni, *Salvia* sp., *Epilobium angustifolium* L., *Valeriana officinalis* L., *Echinacea purpurea* L., *Urtica dioica* L., and *Whitania somnifera* (L.). Duna.

We also offer seedlings of our own plant varieties for sale, which are obtained through conventional propagation methods.



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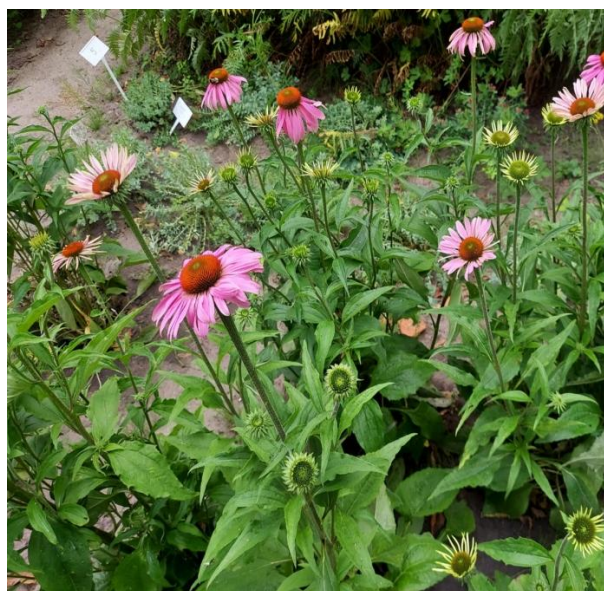
*Whitania somnifera* (L.) Duna.



*Sylibum marianum* L.



*Valeriana officinalis* L.



*Echinacea purpurea* L.



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*Coriandrum sativum* (L)



*Stevia rebaudiana* Bertoni



*Ocimum basilicum* L.





*Linum usitatissimum* L.

## 2. Rental of Conference Rooms

The Institute facilitates the organization of conferences, scientific symposia, and training sessions, in addition to renting conference rooms. Two rooms are available: COLOSEO (amphitheatre) for 200 participants and WRZOSOWA for 40 participants, both equipped with Wi-Fi, LAN access, and air-conditioned.

Located on the border of the picturesque Park Sołacki, the Institute is situated within the park complex that surrounds Rusałka Lake. It is situated in an approximate distance of 4 km from the city centre and 3 km from the Poznań International Fair.



Right side



Left side



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### 3. OUR PRODUCTS

	FOOD PRODUCTS
	<p>OLEJ LNIANY DO DIETY DR. BUDWIG 0,250 ml, 500 ml, 1 l</p> <p>OLEJ KONOPNY 250 ml</p> <p>OLEJ RYDZOWY 250 ml</p> <p>KASZKA LNIANO -OWSIANA ze złotych nasion</p> <p>KASZKA LNIANO-OWSIANA z brązowych nasio</p> <p>KASZKA LNIANA Z ODOLEJONYCH ZMIELONYCH brązowych nasion lnu</p> <p>Bezglutynowa</p> <p>SIEMIE LNIANE ze złotych nasion</p>



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	SIEMIEŃ LNIANE z brązowych nasion LEN MIELONY 100 g LEN MIELONY 200 g BOFLAX LEN MIELONY z brązowych nasion 2x220 g
	COSMETIC PRODUCTS
	KREM KANABIA z olejem konopnym KREM LINUVELLA z olejem lnianym KANABIA KREM DO RĄK KANABIA GREEN balsam do ciała MASŁO DO CIAŁA
	PHARMACEUTICAL PRODUCTS
	<i>Oleum Lini virginale</i> (Olej lniany z pierwszego tłoczenia) – substancja czynna do farmacji (API)
	INDUSTRIAL/COMMERCIAL PRODUCTS
	Włókno lniane czesane Sznurek konopny 1 kg Sznurek konopny 0,5 kg Sznurek lniano-konopny 1 kg Sznurek lniano-konopny 0,5kg Sznurek kolorowy lniany pleciony (szpulka) Sznurek biały (szpulka) Mata lniano-konopna dla zwierząt

#### SAMPLE SALES PRODUCTS



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#### 4. STATIONARY AND ONLINE STORE

<https://www.iwnirz.pl/sklep-internetowy>

#### 5. SCIENTIFIC PUBLISHING HOUSE

The scientific journal HERBA POLONICA has been published by the Institute for 75 years, earning 70 points from the Ministry of Science and Higher Education. The scope of the journal is primarily encompassing the fields of agricultural and biological sciences (plant sciences, ecology, taxonomy), medicine (alternative and complementary medicine), and pharmacology, toxicology, and pharmaceuticals (pharmacology), as indicated by the SCUPUS category.

<https://herbapolonica.pl/>

#### 6. Instances of completed projects and accomplishments

	INN-PRESSME (Open Innovation Ecosystem for Sustainable Plant-Based Nano-Enabled Biomaterials for Packaging, Transportation, and Consumer Goods); The development and implementation of biomaterials, as well as the provision of nanotechnology processes to companies and users, enables the transition from laboratory validation (TRL 4) to industrial prototyping (TRL 7). HORIZON 2020 Program.
	NATURTRUCK. Development of a biocomposite from natural raw materials with improved fire and temperature resistance for the production of truck interior parts. The project uses osmotically deboned hemp fibre. 7th FP EU, SME-2013-1: Research for SMEs.
	FLAXMOW. Innovative flax harvesting and processing technology into monofilament fibre using new technology is being conducted using modernized combine harvesters. National Centre for Research and Development program.
	EKOHEMPKON. the application of fibrous hemp to post-mining agricultural remediation sites. The cultivation of hemp is a novel approach to remediating degraded land in the Konin KWB region. LIFE+ Program. EU - LIFE+ Financial Instrument and the National Fund for Environmental Protection and Water Management.
	MAGIC. Marginal areas for industrial crop cultivation: turning a problem into an opportunity. HORIZON 2020 Program.



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	HALOSYS. Integrated bioremediation system - biorefining using halophyte species. ERA-NET FACCE SURPLUS 2 Program.
	ONKOKAN, INNOMED. Development of technology for extracting cannabinoids from low-THC cannabis as a treatment aid for oncology patients. National Centre for Research and Development (NCBiR) program funded by the Innovative Economy Operational Programme under the European Regional Development Fund. 2014-2018.
	EPIMAN PLUS. Scale-up of production of a dietary supplement for acne-prone individuals, based on fireweed. "Innovation Incubator 4.0" program under the Smart Growth Operational Program 2014–2020.

<https://www.iwnirz.pl/projekty/projekty-miedzynarodowe>

<https://www.iwnirz.pl/projekty/projekty-krajowe>

## 7. INTERDISCIPLINARY ACTIVITY

The activity of our Institute's employees is disseminated and published in the tab „Aktualności” (<https://www.iwnirz.pl/aktualnosci>)

## 8. CONTACT

Institute of Natural Fibres and Medicinal Plants

National Research Institute

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