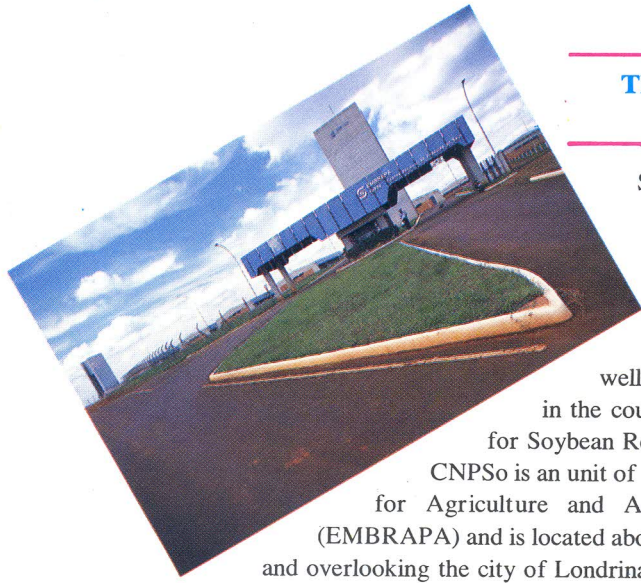




**CNPSo: Searching for solutions
Commitment to mankind.**





TECHNOLOGICAL SUPPORT

Soybean is one of the major agricultural commodities in Brazil and its production is supported by one of the finest and well-staffed research facilities in the country: the National Center for Soybean Research (CNPSO).

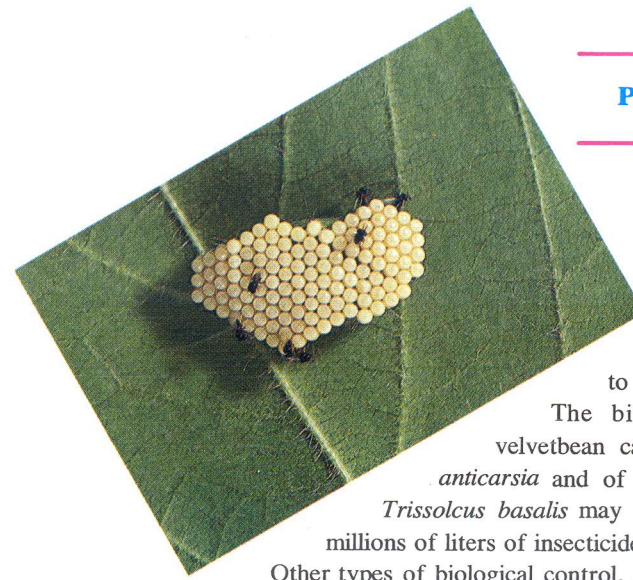
CNPSO is an unit of the Brazilian Organization for Agriculture and Animal Science Research (EMBRAPA) and is located about 18 km from downtown and overlooking the city of Londrina.

On a land of 350 hectares, CNPSO comprises four main laboratories, a well supplied library, a computer center, an auditorium equipped for simultaneous translation, 20 greenhouses, experimental fields, and several structures for supporting activities.

As one of the commodity centers of EMBRAPA, CNPSO is committed to establish an economical and rational exploitation of high productivity soybeans, compatible with conservation of the environment, and maximum utilization of natural resources for pest and disease control.

The research activities cover broad scientific fields: climatology, statistics, soil science, plant nutrition and fertilizer, entomology, plant pathology, plant physiology, seed technology, weed science, genetics and breeding, and soybeans for human consumption.

Wheat and sunflower are also studied at CNPSO and are important in the crop management systems where diversification, rotation, and double-cropping are emphasized.



Since its establishment in 1975, CNPSO has generated technologies that are ecologically sound, profitable to the farmers, and safe to the consumers.

The biological control of the velvetbean caterpillar with *Baculovirus anticarsia* and of the green stink bug with *Trissolcus basalis* may prevent the annual use of millions of liters of insecticides for their control.

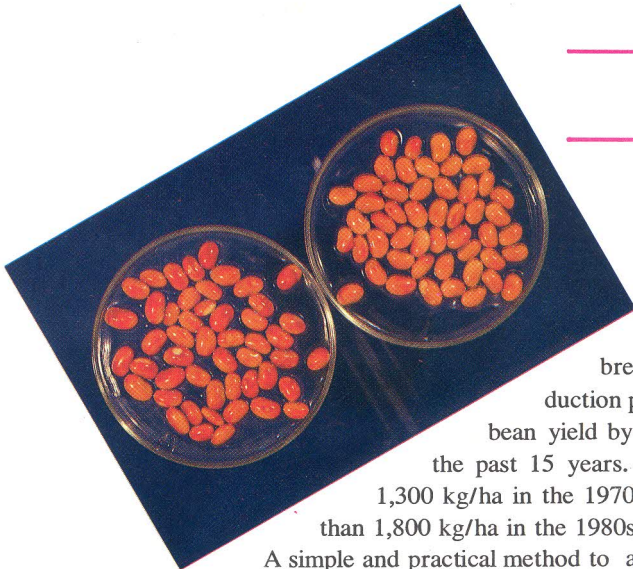
Other types of biological control, such as the control of wild poinsettia (milk weed) (*Euphorbia heterophylla*) with the fungus *Helminthosporium* sp., are under investigation.

The crop rotation and diversification of crop species recommended by CNPSO have allowed soil conservation and recovery of degraded soils in different regions in the country.

High yielding and disease-resistant cultivars, economical levels of fertilizers, soil management, and integrated control methods for insects and weeds, are some of the technologies that are continuously updated and passed on to the extension agents and farmers.



TECHNOLOGICAL INDEPENDENCE

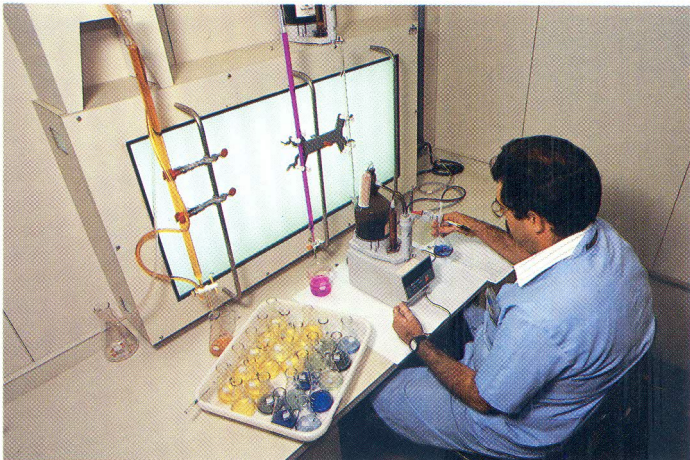


CNPSO scientists are engaged in all stages of soybean production.

The development of new cultivars through breeding, along with other production practices, have boosted soybean yield by as much as 40 percent in the past 15 years. From an average yield of 1,300 kg/ha in the 1970s, it has increased to more than 1,800 kg/ha in the 1980s.

A simple and practical method to assess harvest losses devised at CNPSO has saved about 600 thousand tons of soybeans annually that would otherwise remain in the field.

Another major contribution of CNPSO scientists is the development of the Complete Diagnosis of Soybean Seed Quality, known as DIACOM. This procedure has greatly increased the precision of the test for quality of the seeds used in commercial production.



CHALLENGES

Along the years, CNPSO has overcome a number of obstacles to be able to provide the technological support for soybean production in Brazil. The development of cultivars adapted to the "cerrado" (Savannah in the West-Central, Northeast, and North Regions) have made economical production possible where no soybeans were grown until recently.

CNPSO scientists still have important tasks ahead in the fulfillment of the institutional commitment toward the improvement of farmers' life and of the society as a whole.

It is necessary to continue the search and improve the techniques that will warrant technological independence in soybean production.

At the same time, it is necessary to fulfill the social function of the research findings, with a product that has potential to alleviate the protein deficiency in the diet of the poorest segment of the population.

Cultivars especially designed for human consumption are under development by genetic improvement. Through practical courses and publications, CNPSO is teaching the techniques for the improvement of the soybean flavor and to eliminate the antinutritional factors in the grains, thus making the use of soybeans a possible alternative to enrich the diet of the Brazilians.



OUR PEOPLE

CNPSO has a highly trained and specialized research-staff of 58 scientists (23 PhDs. and 35 MScs.). The supporting personnel include 230 field and laboratory technicians and field workers, and 53 people in the eight administrative sections.

OUR COORDINATION

At the national level, CNPSO coordinates the research activities through the National Soybeans Research Program (PNP Soja). There are more than 160 research projects in different areas.

At the international level, CNPSO also coordinates the activities for the technological development of soybeans and other oil crops in the South Cone countries (Argentina, Bolivia, Brazil, Chile, Paraguay and Uruguay), through the Cooperative Research and Technology Transfer Program called PROCISUR.

NATIONAL AND INTERNATIONAL COOPERATION

CNPSO maintains several cooperative agreements with national and international research institutions, universities, and government agencies. Its research staff is permanently acting in consulting positions both nationally and internationally (eg., Food and Agriculture Organization (FAO) of the United Nations). The research staff is also actively engaged in academic activities, lecturing and serving in advisory committees at the graduate and undergraduate levels in the local and other Brazilian Universities.



EMPRESA BRASILEIRA DE PESQUISA AGROPECUÁRIA - EMBRAPA
Vinculada ao Ministério da Agricultura e Reforma Agrária

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