



**RESEARCHER IN *PRUNUS*
BREEDING FOR THE
FRUIT PRODUCTION PROGRAM**

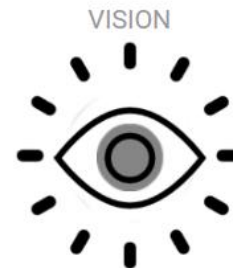
About IRTA

IRTA is a research institute owned by the Government of Catalonia ascribed to the Department of Agriculture and Livestock. It is regulated by Law 04/2009, passed by the Catalan Parliament on 15 April 2009, and it is ruled by private regulations. IRTA is one of the CERCA centers of excellence of the Catalan Research System.

IRTA's purpose is to contribute to the modernization, competitiveness and sustainable development of agriculture, food and aquaculture sectors, the supply of healthy and quality foods for consumers and, generally, improving the welfare and prosperity of the society.



Contribute to the modernization, competitiveness and sustainable development of the agrarian, food and aquaculture sectors, to the provision of healthy and quality food for consumers and, in general, to improve the welfare of the population.



Become a scientific reference, an engine of innovation and technology transfer. We want to be the strategic ally of the agri-food sector.



1. Commitment
2. Creativity
3. Learning
4. Innovation
5. Leadership
6. Respect
7. Vocation of service

THE PROGRAM OF FRUIT PRODUCTION

The objectives of the **Fruit Production** Program are:

- Renovation and continuous improvement of the productive structure, working plant material from selection and/or evaluation to genetic improvement, bringing in new varieties adapted to different agri-environmental conditions and to different markets.
- Efficient use of production inputs.
- Reducing production cost and improving productivity.
- Development of models for integrated production systems, conservation and distribution considering the preservation of natural resources and respecting the environment.
- Obtaining excellent quality fruit products (commercial traits, organoleptic attributes, and nutritional properties).

These scientific topics are developed for several crops or species, like pip fruits (apple and pear), stone fruits (peach, cherry, and apricot), nuts (almond, walnut and hazelnut), olive, vineyard, carob, citrus, and agroforestry species.

The lines of work are:

Plant material

- Introduction and evaluation of new varieties and rootstocks.
- Genetic improvement of new varieties of apple, pear, peach, and almond programs as well as a pear root stocks breeding program.
- Projects focused on the expansion and application of the knowledge in databases of genetic traits of interest for these species.
- Evaluation and characterization of 6 National gene banks and 3 Core collections in joint projects with other European research institutions.
- Application of molecular genetics and physiologic techniques to selection processes or to improve efficiency in breeding programs.

Crop technology

- Reduction of the unproductive period.
- Formation, pruning and management systems.
- Bioregulators to any key process in production (fruit set, growth control, chemical thinning, etc.).
- New varietal replant situations.
- Plant nutrition and water requirements with different rootstocks, training system, etc.
- Agronomic techniques to improve quality.

Oil and Fruit quality

- Determination of the optimum harvest time.
- Typification of oil in different areas and cultivars.
- Development of technology to improve quality and efficiency in oil production.
- Application of products and techniques to improve fruit organoleptic quality.
- Application of products and techniques to improve fruit colour and reduce defects.
- Development and/or validation of non-destructive measurements of fruit quality.

Climate change

- Identification of most susceptible phenological stages or physiological process to climate change.
- Adaptation to climate change by plant material selection or plant/orchard management.
- Mitigation by soil management or plant management.

ROLE PROFILE

IRTA is currently seeking a **Researcher in *Prunus* Breeding** (almond and peach). The Researcher will lead the breeding research line and focus on planning and coordinating the breed and development of new almond and peach varieties.

DUTIES AND RESPONSIBILITIES

- To identify and integrate areas of research that will boost the performance of this research line, and of the operational management to ensure the timely delivery of outcomes and impacts for our key customer(s).
- To breed and develop new almond and peach varieties, implementing the coordination and planning of breeding programs.
- To control and supervise the tasks related to fruit breeding. Seedling selection assessment at different stages both in the field and in the laboratory.
- To establish the breeding methodology to follow in coordination with the breeding team.
- To design crosses according to breeding aims.
- Planning and supervision of work related to plant material (parents, progenies seedlings and selections) from the breeding program.
- To select seedlings in the greenhouse and the field, including marker assisted breeding.
- To supervise and manage seedlings in selection plots.

- To assess agronomically and commercially new selections.
- To assess selections in the field and the laboratory according to taste and sensory evaluation parameters and biochemical contents.
- To management, maintain and analyse breeding databases.



REQUIRED EXPERIENCE AND QUALIFICATIONS

Essential requirements:

- Ph.D. in Plant Science (Degree in plant breeding and genetics, agronomy, plant biology or related).
- More than 3 years of experience in plant breeding and/or genetics, preferably on fruit trees.
- Post-doc and/or research position, with a minimum experience of 2 years in an international research institution.
- Advanced knowledge and skills in genetics and molecular marker assisted selection (MAS) applied to plant breeding programmes.
- Sound knowledge of statistics applied to plant breeding and genetics.
- Sound informatics background at advance user level of the Office package (Word, Excel, Power Point, etc.) and data analysis programs.
- Proficiency in English, both spoken and written.
- Full driving license for Europe and travelling availability.

Desirable requirements:

- Skills and experience in fruit orchard management.
- Skills and experience in fruit quality determination (sensory, instrumental and biochemical analysis).
- Experience as research project leader during at least 3 years.
- Capacity in fruit industry concertation, technology transfer and fostering innovation added value.
- Knowledge of Catalan and Spanish will also be valued.

Personal profile:

- Strong organizational capability and ability to learn and successfully work within multidisciplinary teams and experience to motivate research teams.
- Receptive to challenges and results oriented.
- Capacity and skills to develop and encourage strong collaborative links with the national and international scientific community and the fruit industry sector (Catalan, Spanish and European).
- Capacity to anticipate, plan and write R+D projects, reports and technical documents.
- Good oral and written communication skills.

TERMS OF APPOINTMENT

This is a **full-time position** with the successful candidate being contracted **permanently** with a probationary period of 6 months. Gross salary will be commensurate with the qualifications and experience.

IRTA offers a rich environment for knowledge development and exchange where to develop a scientific career, and possibilities for professional promotion according to the attained achievements.

LOCATION: LLEIDA



Lleida is the capital of “El Segrià”, a large county on the western edge of Catalonia that takes its name from the River Segre, which crosses the county. Lleida is the economic and demographic hub of inland Catalonia. Lleida’s climate is continental, with hot summers and cold winters.

The streets of Lleida, with their rich historical and monumental heritage, also bear witness to the business activities and initiatives befitting a major modern city that looks towards the future. Lleida is the capital of one of the most fertile areas in Europe and its agri-food industry is one of the main drivers of its economy. Many benchmark companies have their headquarters in Lleida, including many R&D firms that have set up in the Garden Agri-Food Science and Technology Park to take advantage of its international potential.

There is an extensive public and private transport network for travelling to Lleida. The AVE high-speed train is a good alternative. There is also a modern road network, including the AP2 Northeast motorway, the A2 Lleida-Barcelona motorway and the C25 motorway linking Lleida and Girona. Now, it is also possible to fly into Lleida-Alguaire airport.

KEY STEPS IN THE SELECTION PROCESS

If you wish to be considered for this position, please, go to the link:

<http://www.irta.cat/en/work-at-irta/>

and register yourself. You should load your **CV** in Adobe Acrobat pdf format before the 14th of August 2021. All information will be in the strictest confidence.

During the recruitment process, the Human Resources Department will keep you informed in which step is your application.

Register to have full access to our job vacancy publications and future opportunities



Deadline timing job ref. 4221/21 Researcher in <i>Prunus</i> Breeding Fruit Production Program	
65 days	Publication and diffusion of the job advertisement on IRTA's website, EURAXESS Jobs, social media and other specific recruitment places.
5 following working days	Distribution of the pre-selected CVs which match eligibility criteria to the Selection Committee. Communication via e-mail with the not pre-selected candidates who will not be further included in the process.
20 following working days	Selection Committee: <ul style="list-style-type: none"> - Communication via e-mail with the not-selected candidates by the Selection Committee. - Interview with selected candidates by the Selection Committee. - Accord of the Selection Committee stating the selected candidate and detailed reasoning for the decline of the rest of the candidates. - Communication via e-mail with the interviewed and not-selected candidates.
5 following working days	Provision by the selected candidate of requested legal and official documentation to the HR department to coordinate the start of the candidate.
Last trimester of 2021	Start of employment (approximately)