THE CONSORTIUM

The CHIC consortium consists of seventeen internationally leading industrial, academic and public partners. Partners are located in 10 European member states, one associated member state (Serbia) and in New Zealand

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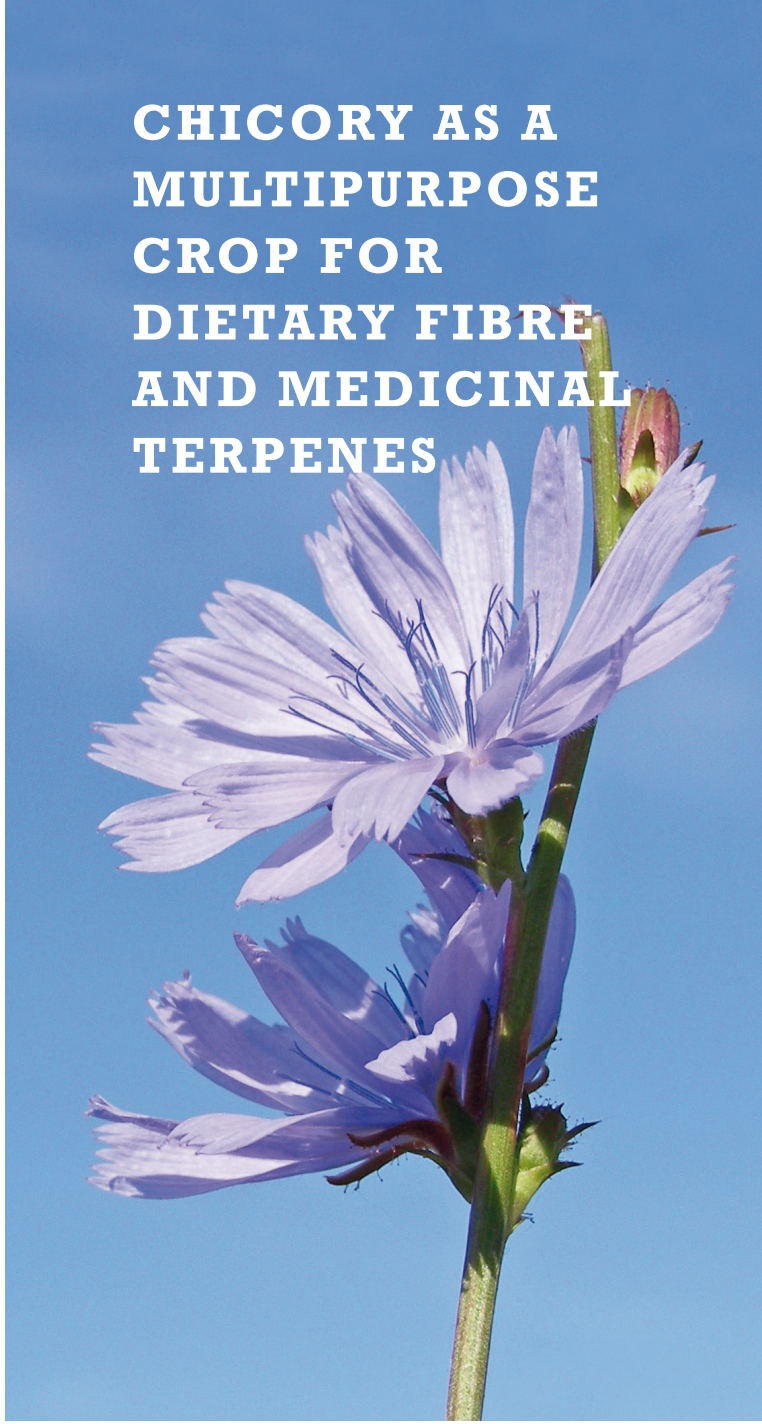
CHIC

CHICORY AS A MULTIPURPOSE CROP FOR DIETARY FIBRE AND MEDICINAL TERPENES



CHIC

THE PROJECT

CHIC is an innovation project aimed at implementing New Plant Breeding Techniques (NPBTs) in chicory, in order to establish it as a multipurpose crop for sustainable molecular farming of products with consumer benefits.

CHIC'S OBJECTIVES AND ACTIVITIES

The aims of CHIC project are:

- To develop and improve NPBTs as ***breeding tools*** for chicory.
- To provide examples of NPBTs with ***benefits for European consumers***, such as the development of chicory varieties which produce prebiotic and immunomodulatory dietary fibres and bioactive terpenes.
- To provide a ***socio-economic*** analysis of the impact of NPBTs on the chicory value chain (breeders, growers, processing industry, food- and cosmetics industry), by supplying new varieties that produce superior and/or novel products.
- To ***develop*** risk assessment ***protocols*** for NPBTs in chicory.
- To monitor ***regulatory*** and ***policy*** developments relevant for the implementation of NPBTs in plant breeding.
- To provide a Life Cycle Assessment (LCA) of the ***environmental impacts*** of the novel chicory varieties and products throughout the whole value chain.
- To identify and investigate societal concerns and needs by ***involving stakeholders*** and considering their views during the entire project period.
- To develop and use innovative, art-based cultural communication tools to stimulate the ***interaction*** with the public and increase awareness.
- To develop ***two business cases***: one for improved inulin as dietary fibre and sugar replacer, and one for novel chicory product with health benefit.

WORK PACKAGES

LEAD PARTICIPANTS

WP1. Development of four conceptually different NPBTs. — KeyGene

WP2. Implementation of NPBTs in Chicory for dietary inulin. — Wageningen University & Research

WP3. Implementation of NPBTs in Chicory for bioactive terpenes. — IPB Leibniz-Institut für Pflanzenbiochemie

WP4. Technical and Risk assessment of NPBTs. — JKI Julius Kühn-Institut

WP5. Socio-economic and environmental impacts on the whole value chain. — JOANNEUM RESEARCH

WP6. Stakeholder engagement. — TU Graz

WP7. Exploitation, dissemination and communication. — ID consortium

WP8. Commercial exploitation of chicory as a multipurpose crop. — VTT

WP9. Management. — Wageningen University & Research

STAKEHOLDERS ADVISORY GROUP

- Plant Breeders
- Farmers
- Industry
- Environmental and Consumers groups
- Researches
- Health organisations

PROJECT PARTNERS

- Plant Breeding
- Product development
- Plant molecular farming
- Molecular Biosafety
- Biomedical sciences
- Social sciences
- Economics
- Legislation
- Communication
- Arts

CONSUMER AND STAKEHOLDER DIALOGUE

In public debates, NPBTs frequently raise high expectations as well as strong concerns. CHIC will therefore, involve a broad range of stakeholders to raise awareness about these and discuss issues associated with the chicory varieties developed in the project and with NPBTs in general. These include techno-economic potential health benefits, possible environmental and socio-economic impacts, broader societal issues, safety concerns and risk mitigation as well as regulatory and policy measures. Moreover, CHIC will engage with artists who will make themselves familiar with the NPBTs and express their feelings and views in pieces of art, including art installations to inspire a broader public debate.

CHIC'S OUTPUTS

- Products from chicory with consumer benefits.
- Business cases on inulin and terpenes demonstrating chicory's potential as a multipurpose molecular farming crop.
- Implemented NPBTs to allow an efficient breeding of the high potential chicory crop.
- Blueprint for responsible pathways and strategies for coinnovation in future plant breeding and plant biotechnology.
- Improved communication strategies towards stakeholders and the general public.
- Informed decision making for policy makers and businesses.