

Digital solutions for efficient crop management: online support platform

Agriculture faces a major challenge in the coming decades. Productivity will need to increase by 60% to meet the food demand of a growing world population that will peak in 2050

Chile / Argentina / Honduras / Uruguay

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Plataforma de soporte online de manjo de cultivos de libre acceso
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Reducción de la brecha de rendimiento
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Modelos de fenología de cultivos
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Determinación de la huella de carbono en los cultivos objetivo
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Formación de capital humano
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Capacitación a productores



The proposal involves the Austral University of Chile (Chile), the University of Buenos Aires (Argentina), the University of the Oriental Republic of Uruguay (Uruguay) and the National University of Agriculture (Honduras).

Initiative

The main objective of this proposal is to create a free online platform to support decision-making in the agronomic management of the main crops in the Southern Cone. This tool

will contribute to increasing the productivity and sustainability of production systems in the context of climate change.

The crops and countries addressed in the development of this proposal are: wheat, barley and canola (Chile, Argentina and Uruguay), corn, beans and rice (Honduras).

Tech solution

Create an open-access online crop management support platform with information to support farmers and advisors in their decision-making. The platform will bring the results of all three technical fronts into a single point of access, with an interface designed for growers and advisors rather than for modelling specialists. It will offer an interactive tool for selecting cultivars and sowing dates according to the thermal and photoperiod conditions of each environment, built on the CRONOS

models calibrated with historical climate data from NASA's POWER database and validated against independent phenological data. It will also carry management strategies for narrowing yield gaps, identified from records held by the partner producer organizations, and carbon footprint estimates produced with the Cool Farm Tool, which shows which management factors account for most emissions. All outputs will be public goods, freely accessible and open to dissemination.

Descripción general del proyecto



MORE INFO



Impacts and Results

The platform is expected to be operational and freely available to growers and advisors in Argentina, Chile, Honduras and Uruguay, with the CRONOS models validated against 570 independent phenological records and extended to maize, bean, rice and canola. Yield gaps for each country's main crops are to be quantified along with the management variables that explain them, and the carbon

footprint of current systems estimated alongside the footprint achievable under the proposed strategies. The project provides for one training workshop per country in its final year, for growers, advisors and students, together with a platform tutorial and scientific publications documenting how the models were built and validated.

Main Donors



Organizations

