



Press Release No 6

## FruitCREWS Concludes at the European Parliament with a Call for Water Resilience

**Brussels, 24 June 2026** – More than four years of collaborative research, knowledge exchange and stakeholder engagement culminated this week as the COST Action [FruitCREWS](#) (Fruit tree Crop REsponses to Water deficit and decision support Systems applications) held its final workshop at the **European Parliament Info Hub**, in a Brussels hit by an unprecedented heat wave: the perfect context for reminding us of the strong consequences of climate change on both the population and on EU agriculture.

Bringing together scientists, policy makers, farmers' organisations, irrigation experts and representatives of the **European Commission** and the European Parliament, the event focused on one of the most pressing challenges facing European agriculture: how to ensure sustainable water management under increasing water scarcity and more frequent heat waves.

The workshop highlighted the main scientific outcomes achieved by the [FruitCREWS](#) network over its four-year duration while opening a dialogue with European institutions and key stakeholders on future research priorities and policy actions. The discussions confirmed a broad consensus: improving irrigation efficiency is essential but, on its own, will not be sufficient. Future water resilience will require integrated solutions combining scientific knowledge, digital technologies, nature-based approaches, farmer engagement and supportive public policies.

### A European network addressing a global challenge

[FruitCREWS](#) has grown into a truly international scientific community, bringing together more than **350 participants** from **43 countries** across five continents. The COST Action was established to improve the understanding of fruit tree responses to water deficit and to enhance Decision Support Systems (DSSs) that help growers optimise irrigation scheduling under conditions of increasing water scarcity. Throughout the Action, researchers collaborated across disciplines ranging from plant physiology and modelling to sensing technologies, irrigation management and implementation into agricultural practice.

The network has not only advanced scientific knowledge but also promoted cooperation through workshops, training schools and more than thirty Short-Term Scientific Missions, helping to build a new generation of researchers working on sustainable irrigation and climate adaptation.

### From research to practical solutions

One of the central messages emerging from the workshop is that Europe already possesses many of the technological tools needed to improve water management. Modern Decision



Support Systems integrate weather forecasts, remote sensing, soil and plant sensors, physiological models and artificial intelligence to determine when and how much to irrigate, enabling more efficient use of increasingly scarce water resources.

However, despite their considerable technological maturity, these systems remain far from being widely adopted by growers. [FruitCREWS](#) research showed that the obstacles are rarely technological alone. Cost, reliability, limited technical support, insufficient training, lack of trust and weak communication all continue to slow adoption.

To better understand these challenges, [FruitCREWS](#) conducted an international survey involving more than 220 fruit growers. The results identified four distinct farmer profiles - from "efficiency seekers" to "barrier-burdened skeptics" - demonstrating that no single policy instrument can successfully promote digital irrigation technologies. Instead, different groups require tailored combinations of demonstration activities, advisory services, financial incentives, technical support and regulatory measures. This evidence provides an important basis for designing more effective agricultural and innovation policies across Europe.

## Research priorities for the next generation of water management

Building on the scientific work carried out during the Action, [FruitCREWS](#) presented a series of research priorities aimed at supporting the transition towards climate-resilient agriculture.

Among the priorities identified are the development of more robust sensing technologies, improved mechanistic models capable of integrating plant water and carbon relations, dynamic irrigation thresholds adapted to crop development and water availability, salinity response models to facilitate the use of alternative water sources, and greater understanding of tree physiological adaptation to climate change. Researchers also highlighted the importance of managing temporal and spatial variability within orchards through variable-rate irrigation and precision agriculture technologies.

The workshop also emphasised that integrated water management must consider both the supply and demand sides of the water equation. Opportunities exist for water reuse, recycling and improved water retention within agricultural landscapes, while precision irrigation, improved crop genetics, agronomic practices, digital technologies and artificial intelligence all offer significant potential to increase efficiency. The challenge now is to integrate these approaches into practical farming systems that can be adopted on a large scale.

## European policies increasingly aligned with scientific evidence

Representatives of the Directorate-General for Agriculture and Rural Development (**DG AGRI**) placed the [FruitCREWS](#) findings within the broader framework of European policy. Their presentations highlighted that Europe is the fastest-warming continent, with droughts and water scarcity becoming increasingly widespread. Agriculture is simultaneously highly dependent on water and a major actor in water management, making improved resilience essential for both food security and environmental sustainability.



The European Commission presented recent developments including the Vision for Agriculture and Food and the new Water Resilience Strategy, both of which recognise the strategic importance of improving water efficiency, strengthening soil health, promoting innovation and supporting farmers through the **Common Agricultural Policy (CAP)**. Planned flagship actions include greater use of CAP Strategic Plans to foster water resilience, enhanced advisory services, increased digitalisation and innovation, and continued incentives for improved environmental performance.

These policy developments closely reflect many of the recommendations emerging from [FruitCREWS](#), demonstrating how collaborative research networks can contribute directly to shaping future European strategies.

### A common message from science, policy and stakeholders

The workshop concluded with a round table involving representatives of **farmers' organisations, irrigation associations, the European Commission and the European Parliament**. Despite representing different perspectives, participants converged on several important conclusions.

Climate change is increasing not only drought but also plants atmospheric evaporative demand, making water scarcity a challenge extending well beyond agriculture. Nevertheless, participants stressed that agriculture provides essential food production while also delivering important ecosystem services through evapotranspiration and environmental cooling, groundwater recharge and maintenance of the hydrological cycle. Therefore, although water use efficiency must continue to improve, there are physiological limits below which crop productivity cannot be maintained. Future strategies should therefore focus on combining efficient irrigation, improved soil and crop management, digital technologies and integrated water management approaches rather than simply reducing water inputs.

Participants also recognised that many technological solutions are already available commercially, yet adoption remains insufficient. Increasing uptake will require coordinated action involving researchers, advisory services, technology providers, policy makers and farmers themselves. Investment in innovation must therefore be accompanied by stronger knowledge transfer, training, demonstration activities and long-term technical support.

### Building the next phase

Although the COST Action formally concludes in October 2026, participants underlined that [FruitCREWS](#) has established a lasting European network capable of supporting future research and innovation. The Action has demonstrated the value of bringing together plant scientists, engineers, economists, digital technology developers, policy makers and end users around a shared objective: making European agriculture more resilient to water scarcity while maintaining productivity, competitiveness and environmental sustainability.

The final workshop sent a clear message from Brussels: addressing Europe's water challenges will require stronger collaboration between **science, policy and practice**. As climate change



continues to intensify pressure on Europe's water resources, the legacy of [FruitCREWS](#) stresses how improving water resilience is not only a technological challenge but also a societal one—requiring coordinated action across disciplines, sectors and institutions to secure a sustainable future for European agriculture.

Starting Date: October 2022

Duration: 48 months

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support Systems applications

