



## Agriculture

The agriculture of tomorrow requires more natural and sustainable ingredients to improve productivity and reduce the impact on our planet. Jungbunzlauer offers a wide variety of bio-based additives to support the green profile of products for crop, soil and livestock management with no compromise on efficacy. Use our products to create innovative, healthy and sustainable solutions.

### Green formulation aids



Jungbunzlauer offers several co-formulants of natural origin to optimise performance of active ingredients in crop protection and fertiliser formulations.

- **CITROFOL®**, a citrate ester, is a safe to use, non-VOC solvent to improve solubility of common active ingredients in pesticide formulations
- **Xanthan gum**, our bio-based hydrocolloid, performs as effective stabiliser and rheology modifier in suspension concentrate formulations
- Our **organic acids** work as efficient complexing agents for mineral nutrients like iron, copper, manganese and zinc in water-soluble fertilisers



### Boosting plant resilience



Beyond sustainable use and safety, our ingredients are the perfect match for innovative agricultural concepts.

- Our **xanthan gum** has the exceptional ability to improve moisture retention of soil and reduce evaporation, resulting in better plant survival in drought stress conditions
- The citrate ester **CITROFOL®** functions as biodegradable, non-aqueous carrier for biostimulant agents
- **Xanthan gum**, in combination with **tricalcium citrate** are two highly functional ingredients in plant solar protectants, screening the plant from intense irradiation by providing excellent leaf coverage and improved rainfastness

## Safety and efficacy in application



Jungbunzlauer ingredients help to address major global challenges like food security, climate change, biodiversity loss and animal welfare.

- By reducing the amount of drift-able fines and providing a narrower droplet size distribution in agrochemical sprays, our **xanthan gum** makes the spraying process safer and more efficient
- Our organic acids restore soil health through soil remediation. While **citric acid** works as chelating agent in phytoremediation, lactic acid supports naturally occurring soil microorganisms used in bioremediation
- **Lactic acid** is our solution for disinfection purposes. It is suitable for surface disinfection of produce, and reduces the risk of severe microbiological outbreaks and, thus, improving food safety. When used for surface disinfection of animal teat dips it enhances hygiene during milking, food safety and animal welfare



## Microplastic free

Xanthan gum is a highly effective bio-based hydrocolloid with exceptional rheological behaviour, making it an ideal thickener and stabiliser in agrochemicals (e.g. suspension concentrates). Jungbunzlauer offers a wide range of xanthan gum grades, tailored to meet your formulation needs.

## Sustainability

Jungbunzlauer ingredients help pave the way for innovative and sustainable solutions in modern agriculture. Our **organic acids** (**citric acid**, **lactic acid** and **gluconic acid**) and **xanthan gum** are manufactured by fermentation of glucose syrup derived from the renewable raw material corn and are biodegradable. Our **organic mineral** salts are obtained by neutralisation with a mineral source and organic acid esters are obtained by esterification with alcohol.

Sustainability is not only reflected in our ingredients, it is deeply embedded in our company strategy and philosophy. To learn more about our corporate and local sustainability initiatives, please visit our website, where you will find detailed information about our approach to sustainability and have access to our latest [Sustainability Report](#).

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