

XTF

XTF is a formulated biostimulant derived from crop residue's lactic acid fermentate from whiskey distilling and alkaline *Ascophyllum nodosum* extract. The synergy between bioactive carbohydrates and lactic acid bacteria provide plants with defence and growth stimulation mechanisms.

CIRCULAR SYNERGY

Brandon Bioscience has pioneered the research of *Ascophyllum nodosum* and its application as a crop biostimulant since 1998. As part of the wider Marigot group of companies, we also leverage a collaborative approach to innovation. We analyse our resource streams, understand their composition and functionality, and employ a circular process to formulate for maximum performance in field.



PERFECT PARTNERSHIP

The synergy of the organic compounds within **XTF** as well as clear modes of action creates the differentiation and functionality that growers need for performance in field.








ROBUST BIOACTIVITY

XTF provides a broad spectrum of plant defence and growth stimulation properties because of the synergistic action of bioactive oligosaccharides and lactic acid bacteria metabolites.

We are leaders in the production of *Ascophyllum nodosum* biostimulants and excel at maximising the bioactivity of every drop. **XTF** not only supports growers with this bioactivity but also provides them with optimum compatibility in variable conditions.

KEY FEATURES & BENEFITS

-  Expert formulation for more robust activity
-  Lactic acid bacteria for induced systemic resistance
- All the benefits of our *Ascophyllum nodosum* biostimulants:
 - Nutrient use efficiency,
 - Improved yield & quality markers
 - Abiotic stress tolerance

-  Great compatibility with low pH for acidic tank mixes, including calcium
-  Lactic acid provides a natural preservative for organic farming
-  Low dose rate at 0.75-2L/Ha

PSI[®] TECHNOLOGY

Brandon Bioscience understands what makes a high performing biostimulant.

XTF sits within our PSI[®] Technology platform. Not only do we understand what it is but what it does and how it does it. We have validated **XTF** chemically, biologically and functionally. The final step ensures that we confirm it's efficacy in field.



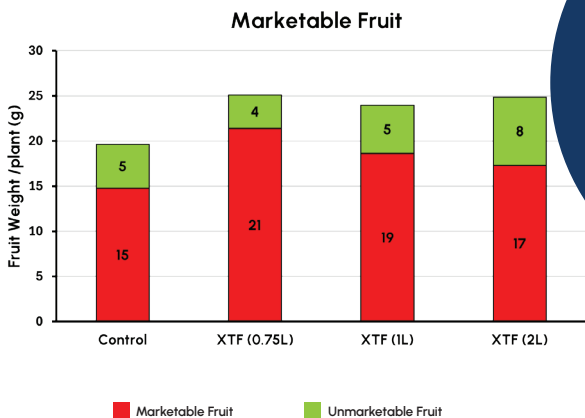
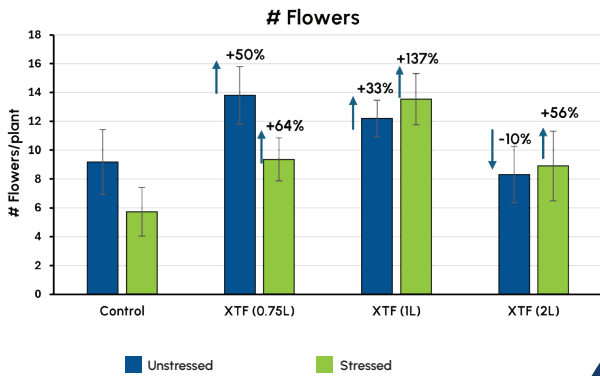
- Chemical Characterisation (What it is)
- Biological Characterisation (What it does)
- Functional Characterisation (How it does it)

SCIENTIFICALLY VALIDATED

We evaluated the potential of XTF to stimulate plant performance under reduced nutrient conditions and abiotic stress pressure.

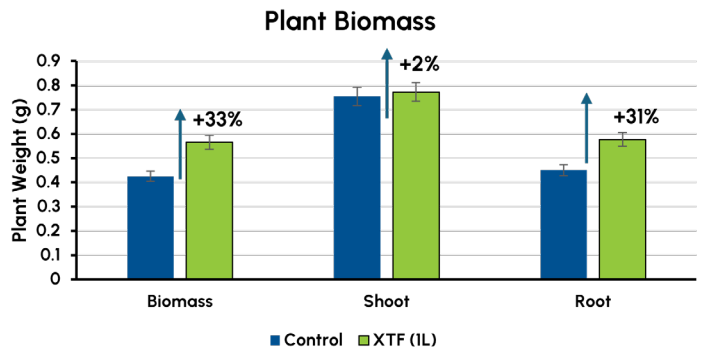
SALINITY STRESS

In tomato plants treated with saline irrigation water, those treated with XTF showed an increase in the number of flowers, which resulted in a higher overall fruit count. Additionally, these XTF-treated plants produced more marketable fruits. Overall, XTF treatment has been validated in the lab to enhance crop productivity and improve abiotic stress tolerance in plants irrigated with high conductivity water.



PLANT BIOMASS

XTF has also been proven to increase nitrogen uptake in wheat seedlings, an important macronutrient for plant growth and development. This has resulted in an increase in plant biomass compared to the control, particularly in root growth. The increase in root length and biomass enhances the likelihood of successful seedling establishment. Overall, XTF has demonstrated its efficiency in enhancing the growth and development of wheat seedlings.



WHAT'S NEXT?

Our final step is to validate XTF in field with robust data. We look forward to working with you to gather crop field data through a partnership of collaboration & innovation.



Our team will provide you with protocols as well as technical support throughout every step of the process. For any questions, please contact:

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