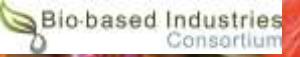
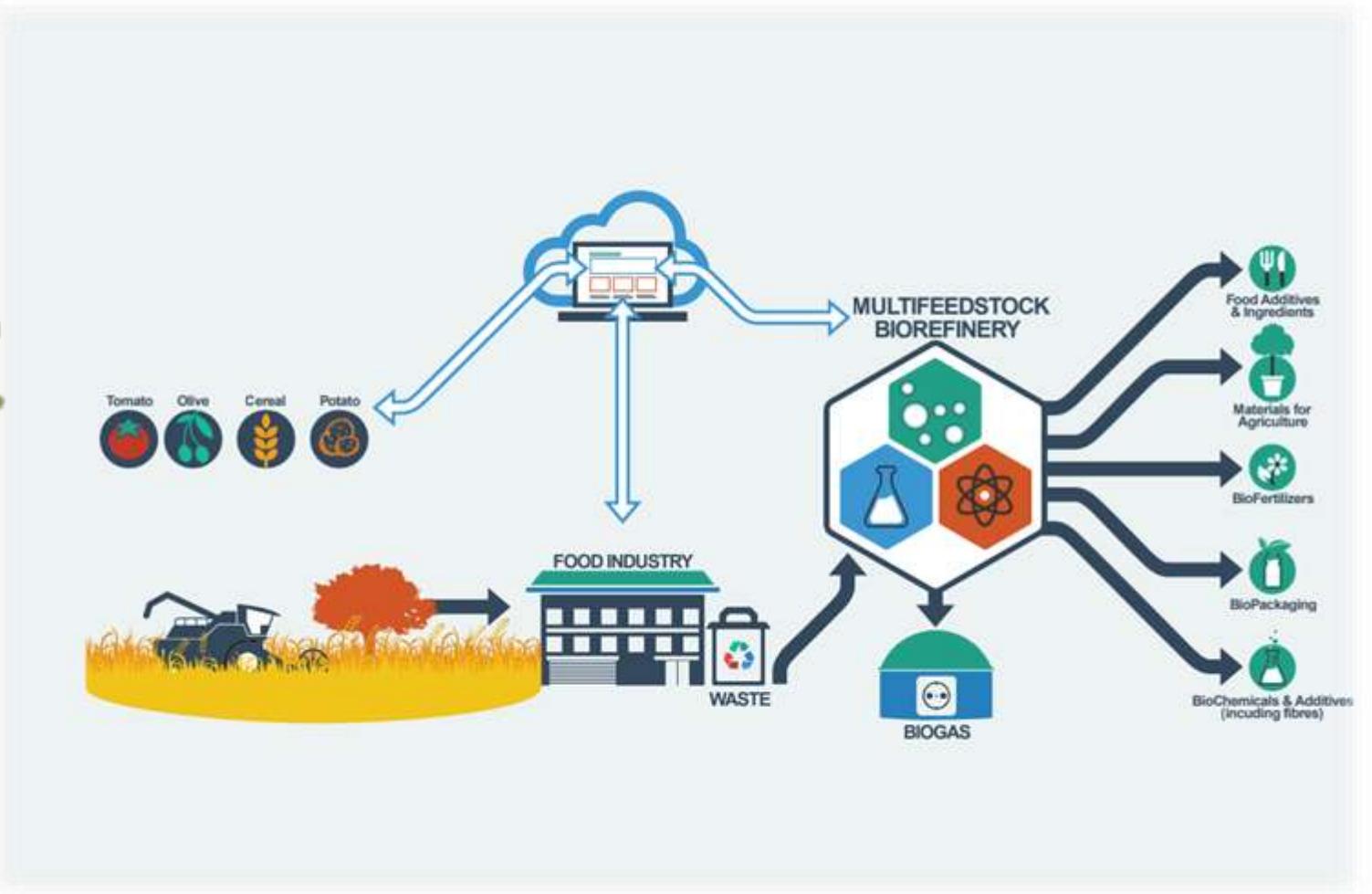


AGRIMAX: Webinar sobre valorización de subproductos agrarios a través de biorefinerías. Sesión formativa.



IN EUROPE, AROUND 90 MILLION TONNES OF FOOD AND 700 MILLION TONNES OF CROP ARE WASTED EVERY YEAR.



This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Licopeno de subproductos tomate

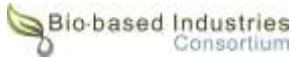


CHIESA Chiesa Virginio (Italy)

Carotenoide responsable de color rojo con propiedades funcionales como antioxidante, antiinflamatorio y quimioterapéutico



SSICA Stazione Sperimentale
per l'Industria delle
Conserve Alimentari (Italy)



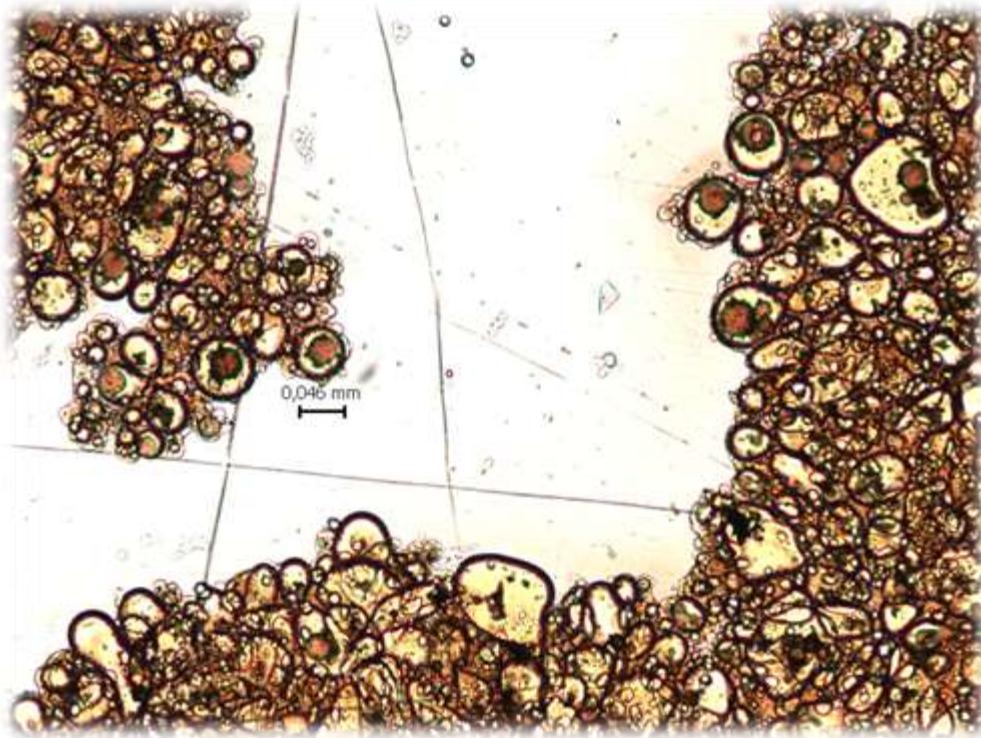
This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Licopeno de subproductos tomate



Incrementar dosis diaria recomendada

IRTA
RESEÑA | TECNOLOGÍA
AGROALIMENTARIA



Microencapsulation by coacervation technique



Possible aplicación en productos de IV gamma



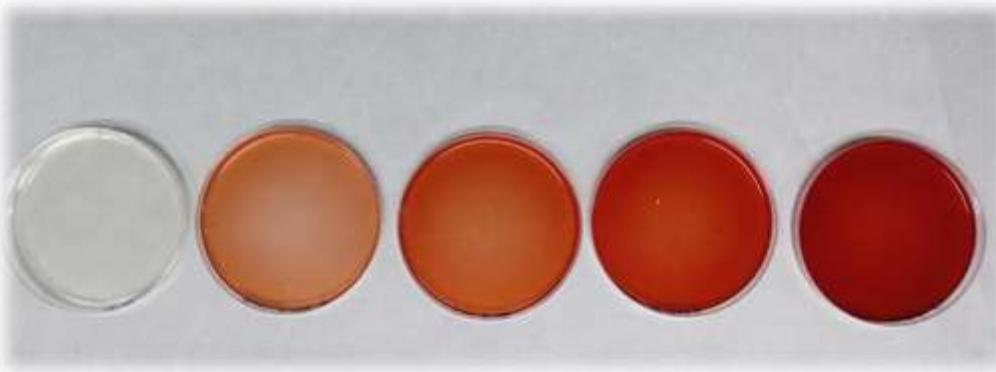
Bio-based Industries
Consortium

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Licopeno de subproductos tomate



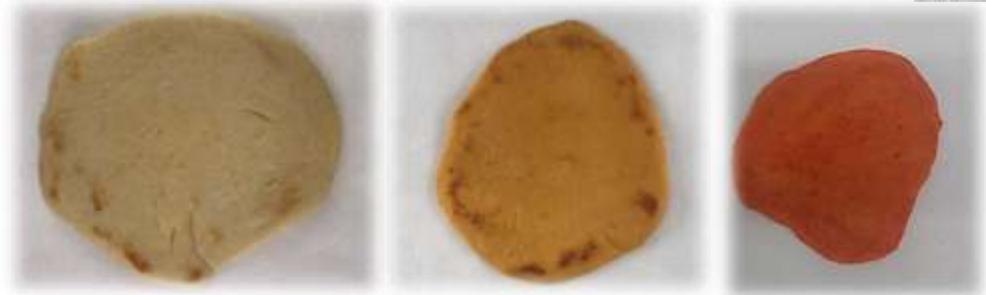
Diseño de aplicaciones



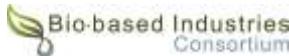
Incorporación en recubrimientos comestibles



Planta Pilot IRTA con Registro Sanitario



Enriquecimiento de productos panificables y untables



This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Licopeno de subproductos tomate



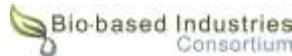
Diseño de aplicaciones



Aplicaciones como colorante alimentario



Planta Piloto IRTA con Registro Sanitario



This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Proteína de piel de patata



Proteína de patata como emulsionante en mayonesa



IL Indulleida SA (Spain)



La proteína de patata funciona muy bien como emulsionante:
podría producirse una mayonesa estable y relativamente sólida.

Incorporación de un 28% de aislado de proteína de patata

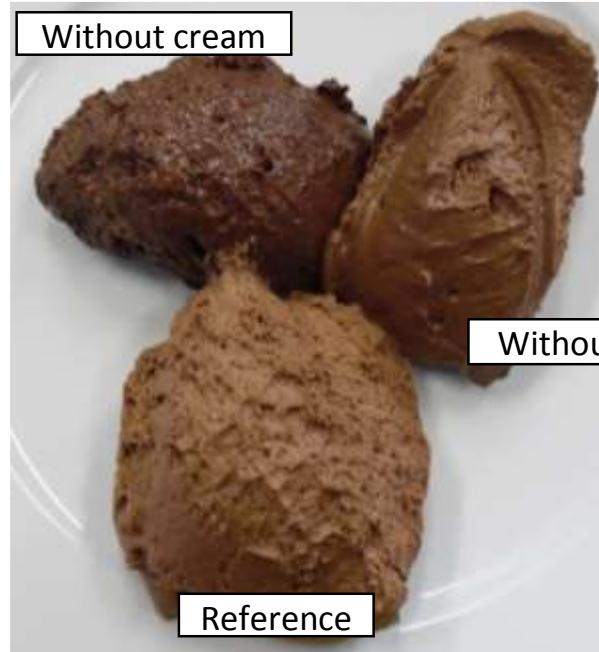


This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

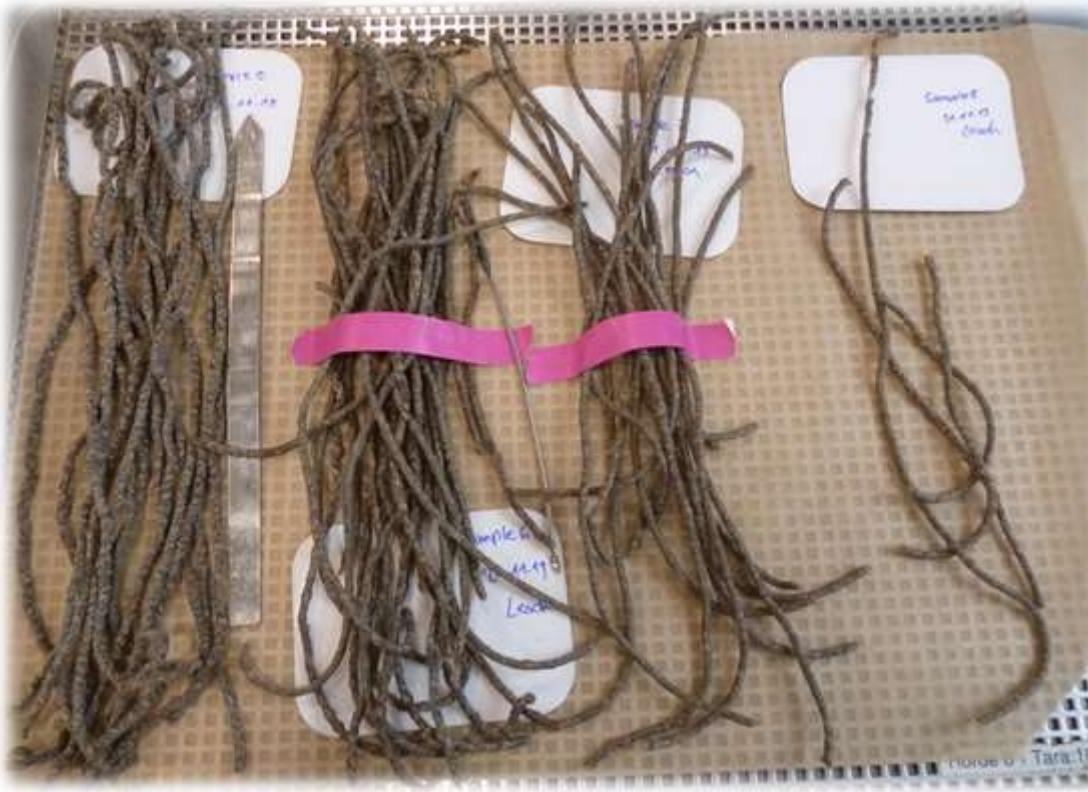
Proteína de piel de patata



Proteína de patata en elaboraciones



Incorporación en diferentes formulaciones de helado



This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Proteína de piel de patata



Diseño de aplicaciones



Elaboración de recubrimiento comestible con protección mecánica, desecación retardada

Tendencia a mayor firmeza en las frutas recubiertas



Bio-based Industries
Consortium

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Polifenoles de alperujo y hojas de olive y piel de patata



Ingredientes de alto valor añadido



IL Indulleida SA (Spain)



Plantas Pilotos IRTA con Registro Sanitario productos de IV gamma y elaborados vegetales



Caracterización *in vitro* y aplicaciones *en vivo*



Bio-based Industries
Consortium

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Aromas de alperujo y hojas de olive y de piel de patata

Ingredientes de alto valor añadido



Aromas de IL Indulleida SA (Spain)



Caracterización del perfil volátil e incorporación en matrices alimentarias



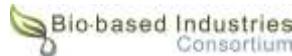
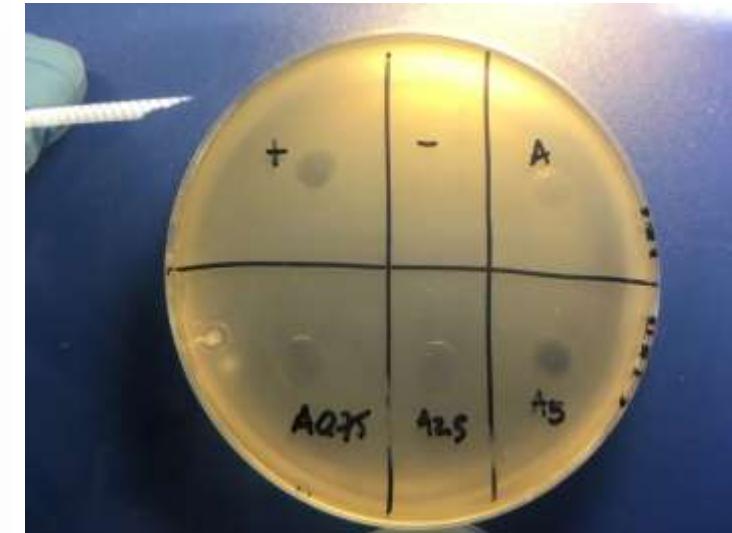
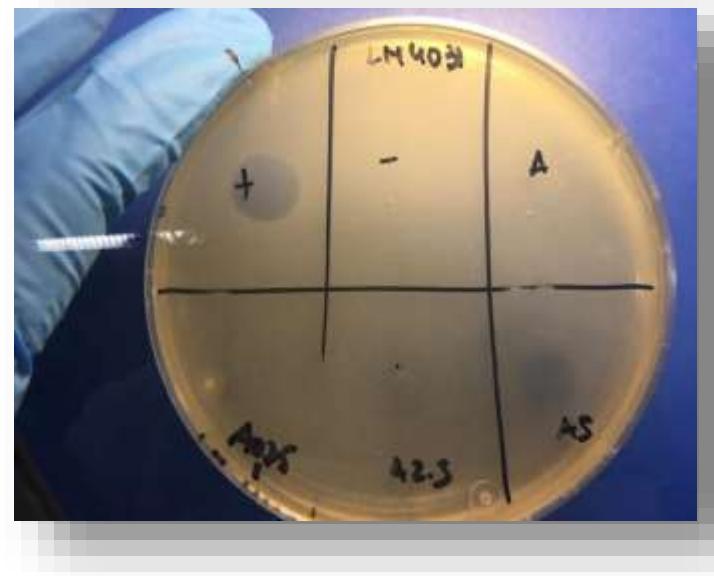
This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Valorización de subproductos del cereal



Ingredientes de alto valor añadido

Caracterización *in vitro* (potencial antioxidante o antimicrobiano)



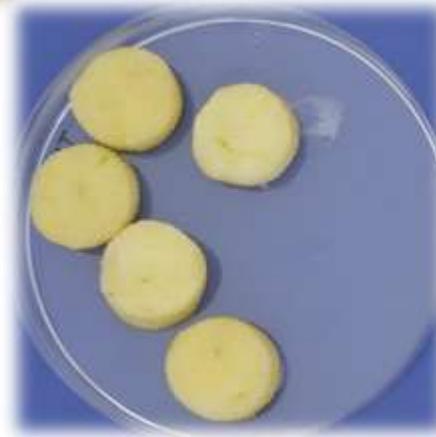
This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.



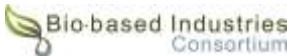
Valorización de subproductos del cereal

Ingredientes de alto valor añadido

Caracterización *in vitro* y diseño de aplicaciones *en vivo* (potencial antioxidante o antimicrobiano)



Aplicación productos de IV gamma por inmersión, sprayado o mediante recubrimiento comestible (melón, manzana)



This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Valorización de subproductos del cereal

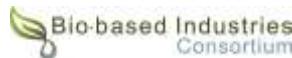


Ingredientes de alto valor añadido

Aplicaciones en vivo (*potencial antioxidante o antimicrobiano, valor nutricional*)



Validación en planta piloto. Aplicación de los ingredientes en formulaciones líquidas



This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Valorización de subproductos del cereal



Ingredientes de alto valor añadido

Aplicaciones en vivo (alto valor nutricional)



Control

**10%
Extract**

Aplicación de los extractos en productos panificables



**75%
Extract**



Bio-based
Industries
Consortium

This project has received funding from the Bio Based Industries Joint Undertaking under the European Union's Horizon 2020 research and innovation programme under grant agreement No. 720719.

Valorización de subproductos del cereal

Ingredientes de alto valor añadido



Chemical characterization according TAPPI standards

Carried out following the procedures and standards of TAPPI T200 series "Fibrous materials and pulp testing".

Cellulose source

Cooking

Refining

Bleaching

Disintegration

Agroindustrial residues

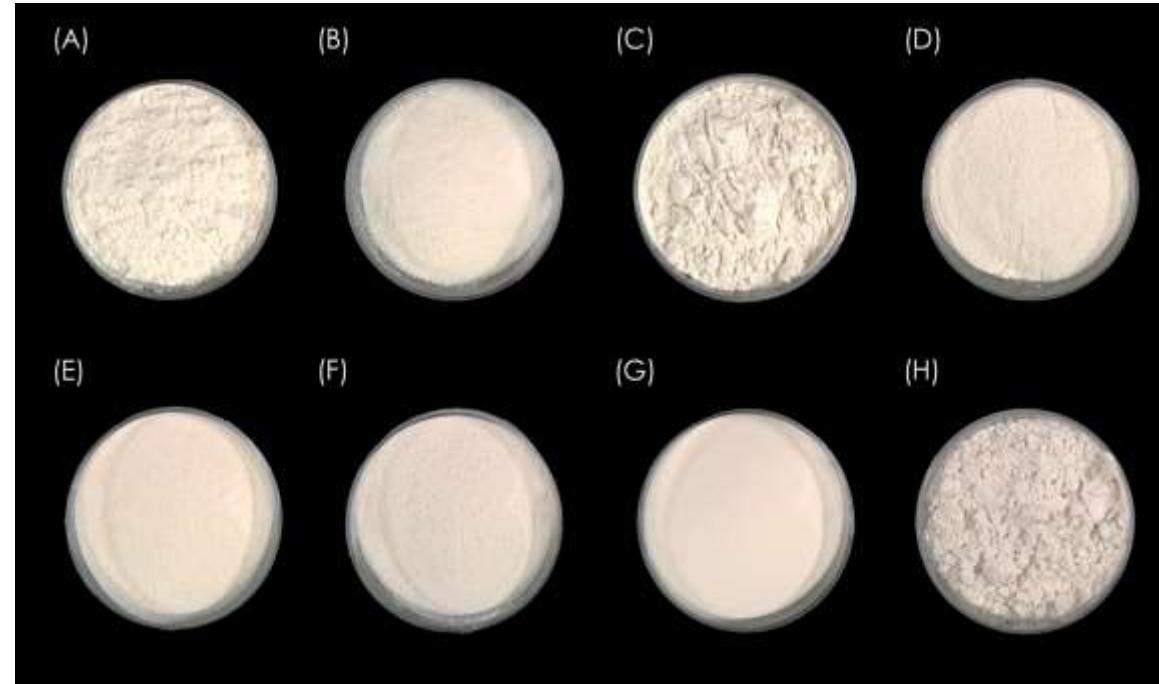


Remove lignin and hemicellulose fraction.

Produce the external fibrillation of fibers by peeling off the external layers.

Remove residual lignin and hemicellulose

MFC



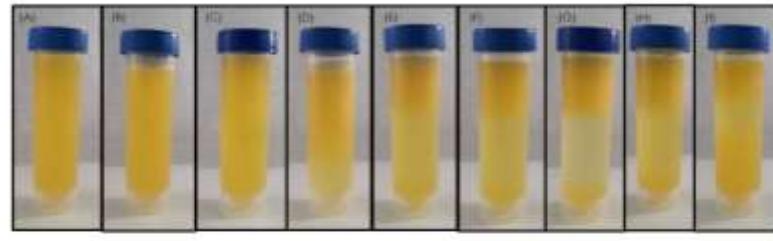
Aplicación como texturizante

(A) Tara gum (B) Xanthan gum (C) Guar gum (D)
Carrageenan (E) Pectin (F) Agar (G) Gelatin (H)
Cellulose microfibres

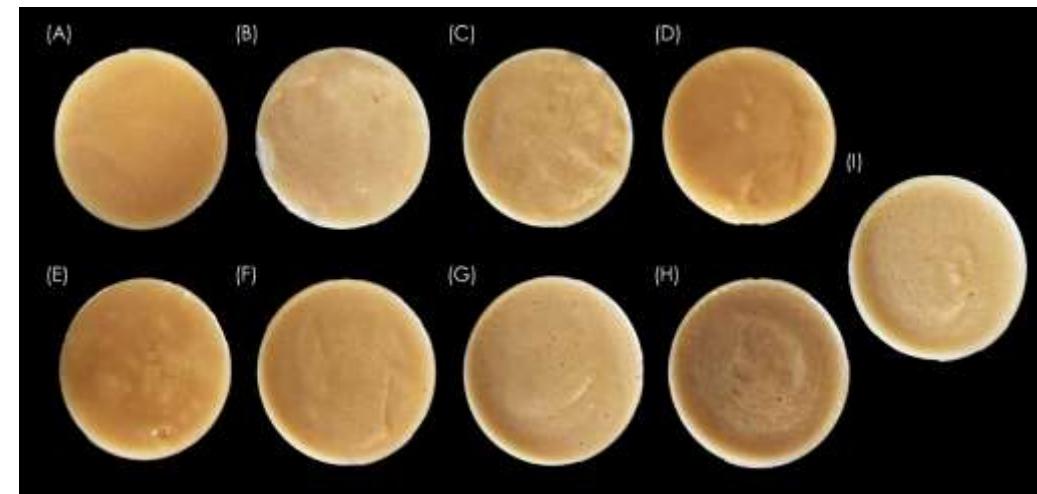
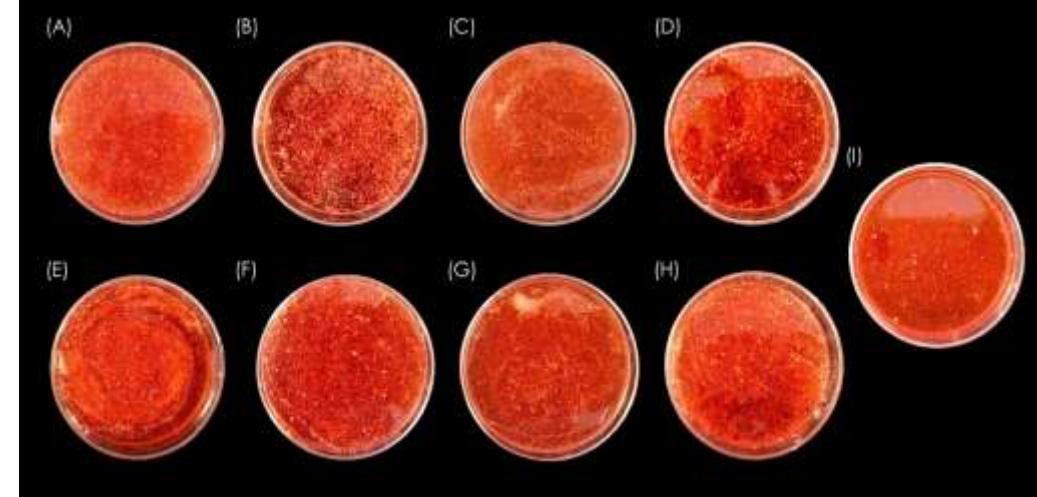
Valorización de subproductos del cereal



Ingredientes de alto valor añadido



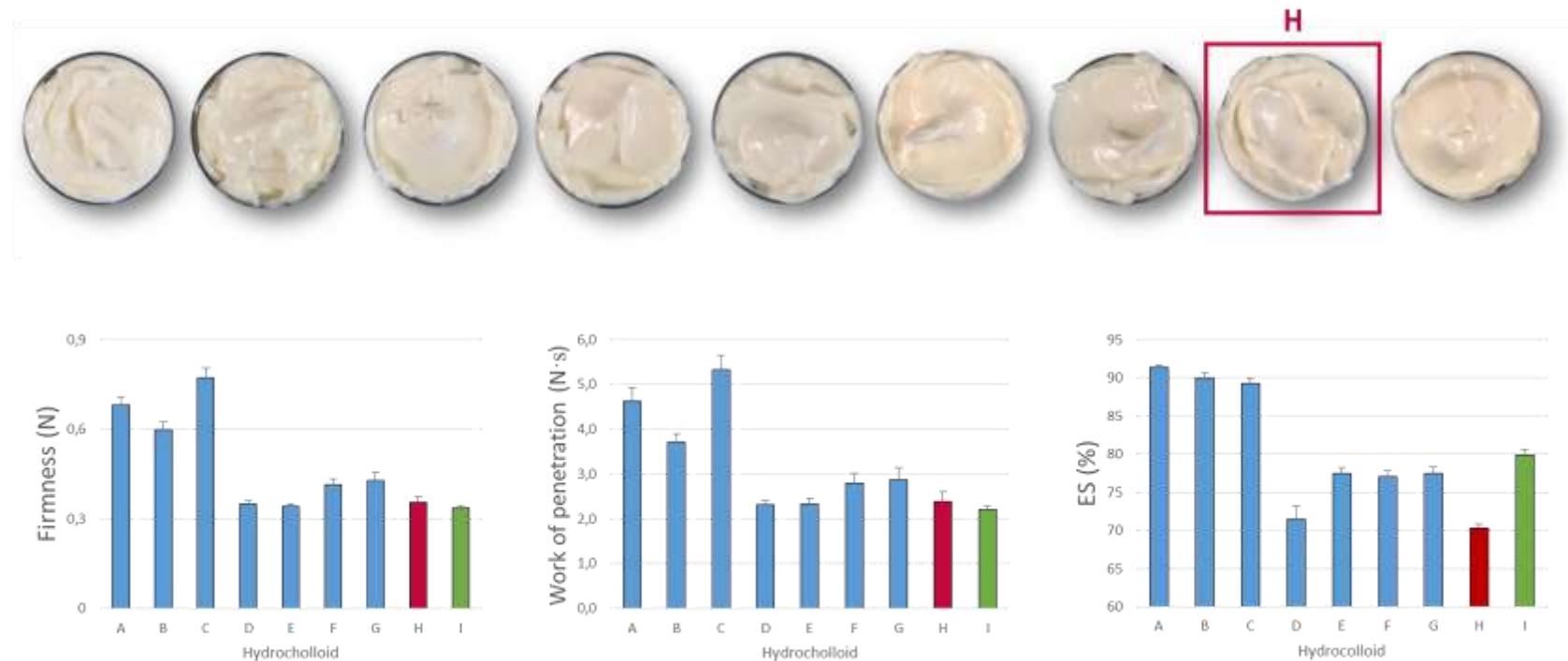
(A) Tara gum (B) Xanthan gum (C) Guar gum (D) Carrageenan (E) Pectin (F) Agar
(G) Gelatin (H) Cellulose microfibres (I) Control



Valorización de subproductos del cereal

Ingredientes de alto valor añadido

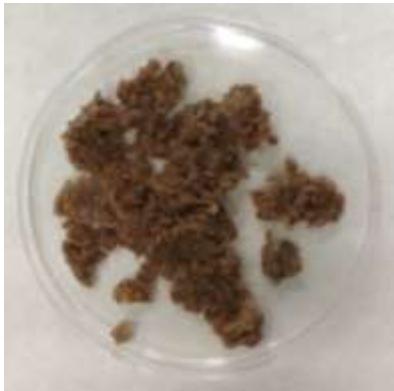
Emulsifying power and emulsion stability



(A) Tara gum (B) Xanthan gum (C) Guar gum (D) Carrageenan (E) Pectin (F) Agar (G) Gelatin (H) Cellulose microfibres
(I) Control

Valorización de subproductos intermedios

Medio de crecimiento para microorganismos de la industria



Potato byproducts (IL)



Potato byproducts (IL)



Transformation of by-products in suitable components for microorganisms production



The growth in the prepared media was compared to the growth obtained in standard media

Valorización de subproductos intermedios



Medio de crecimiento para microorganismos de la industria



*Optimización condiciones de producción en
bioreactor*

Producción en Planta Piloto de Producción y Formulación IRTA

Thank you for your attention!

