

# FoodWasteEXplorer - Food Waste Composition Database

Hannah Pinchen<sup>1</sup>, Barbara Koroušič Seljak<sup>2</sup>, Drago Torkar<sup>2</sup>, Angelika Mantur-Vierendeel<sup>3</sup>, Paul Finglas<sup>1,3</sup>  
<sup>1</sup>Quadram Institute Bioscience, UK; <sup>2</sup>Jozef Stefan Institute, SI; <sup>3</sup>EuroFIR AISBL, BE

**REFRESH is an EU research project taking action against food waste. 26 partners from 12 European countries and China are working towards the project's aim to contribute towards Sustainable Development Goal 12.3 of halving per capita food waste at the retail and consumer level and reducing food losses along production and supply chains, reducing waste management costs, and maximizing the value from unavoidable food waste and packaging materials. As part of this project, FoodWasteEXplorer has been developed.**

**FoodWasteEXplorer** is an online database that provides industry, SMEs, researchers and government agencies and the general public with access to agri-food chain waste streams data. The fully searchable, referenced information can be used to identify the level of certain compounds in different **side streams** so that the user can explore how waste may be better managed and to identify market opportunities for different uses, such as animal feeds, textile fibres, bioplastics or biofuels.

### Areas of interest

Select an area of interest. For example, vegetable oil producers can search for side streams that relate specifically to **oil production**

### Categories

Search for a food via specific **food group** selection

### Specific

Search for a specific food, side stream or component by typing or by using the **drop down list**

HOME PAGE – <http://foodwasteexplorer.eu>

The screenshot shows the homepage of FoodWasteEXplorer. At the top, it says "FoodWasteEXplorer" and "Explore data about food waste streams collected within the EU-funded project REFRESH". Below this is a search bar with a magnifying glass icon and the text "Search". Underneath the search bar are two sections: "Areas of Interest" and "Categories". The "Areas of Interest" section contains 12 circular icons representing different food production processes: Wine Production, Beer Production, Spirits Production, Cider Production, Cereal Production, Chocolate Production, Juice Production, Cheese Production, Animal Production, Sugar Production, Vegetable Oil Production, and Coffee Production. The "Categories" section contains 10 icons representing food groups: Cereals, Milk & Dairy, Eggs, Fats & Oils, Nuts & Seeds, Meat, Fish and Seafood, Fruits & Vegetables, Sugars & Preservers, Beverages, and Other. At the bottom, there are three dropdown menus labeled "Foods", "Side streams", and "Components".

### Free search

Search for **any term** in the food name, side stream or description

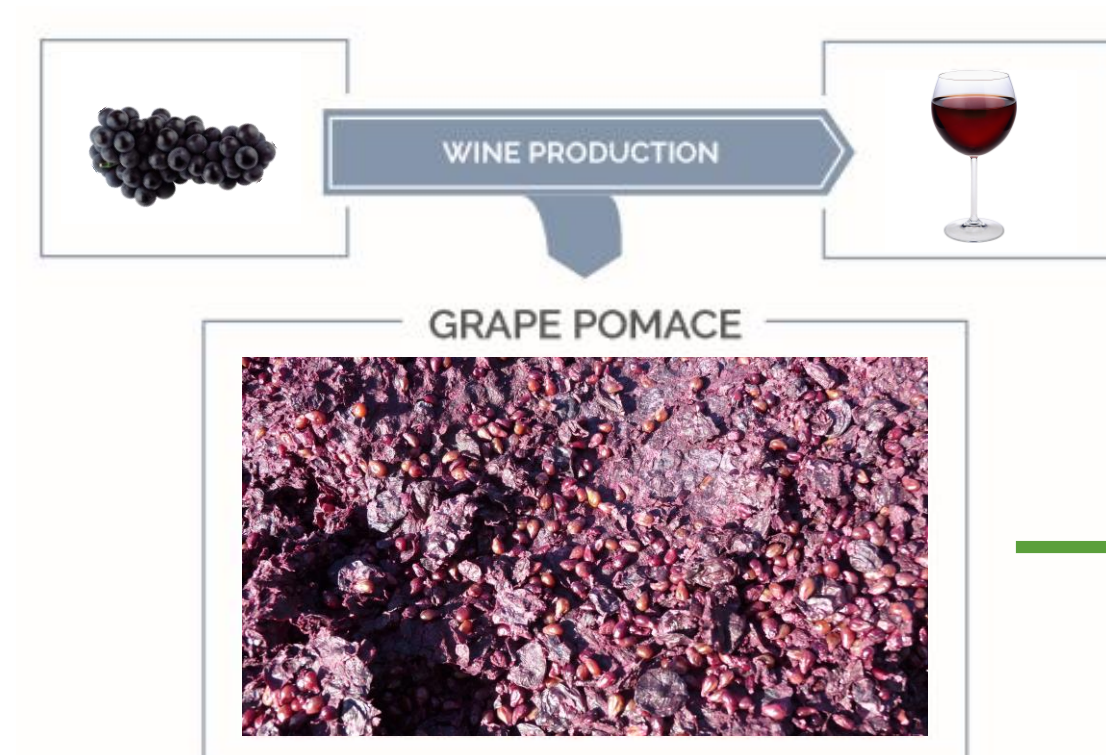
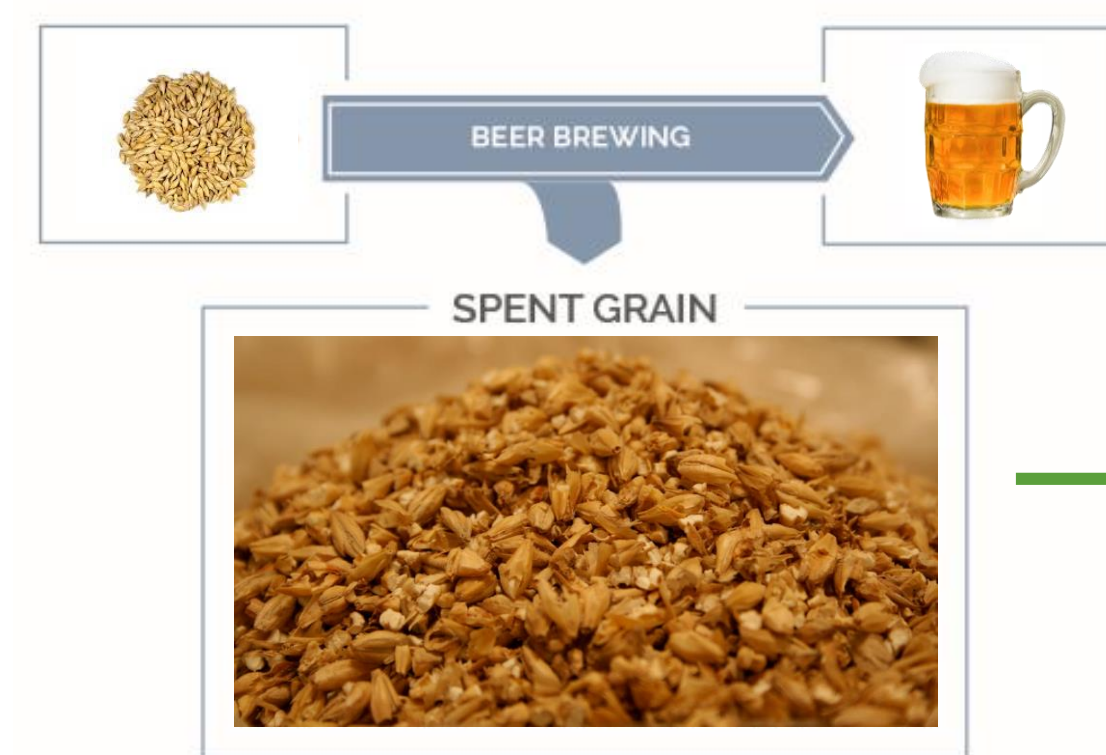
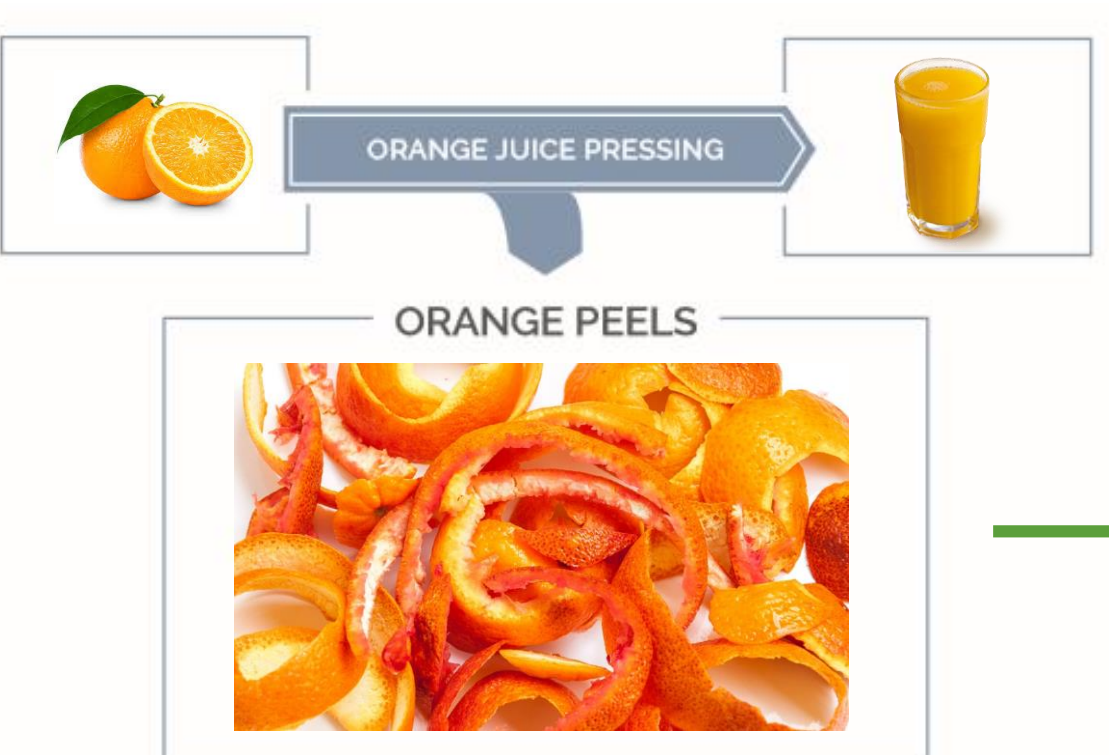
### Outputs

Look at the data online or download into **Excel**. Over 25,000 data points have been added (including nutrients, bioactives, toxicants and waste related components)

The screenshot shows the search results for "Apple". It displays a table with columns: Component group, Component #, Value, Unit, Description, and Reference. The table lists various components of an apple, such as "Add Divalent Flow", "Add Divalent Flow", "ppm db", "ppm db", "N.D.A.", "mg/dry matter", "g protein", "N/A", and "N/A".

Component group	Component #	Value	Unit	Description	Reference
Phenolics	Add Divalent Flow	24	% db	Whole fresh	FoodPrints
Phenolics	Add Divalent Flow	9	% db		FoodPrintsComp
Terpenoids	Ag	10.1	ppm db	Whole	NOISEW
Terpenoids	Al	14.7	ppm db	Whole	NOISEW
Phenolics	Ala	2.6	N.D.A.	Whole	NOISEW
Phenolics	Ala	0.97	mg/dry matter	Whole	NOISEW
Phenolics	Alone	5.7	g protein	Whole fresh	FoodPrints
Phenolics	Anthocian	88	N/A	Whole	NOISEW
Phenolics	Anthocian	79	N/A	Whole	NOISEW

### What can the data be used for?



Taken from work completed by REFRESH colleagues (<https://eu-refresh.org>)