

## EU FOOD WASTE MEASUREMENT METHODOLOGY – CONSULTATION RESPONSE

**We call for the scope of the measurement methodology within the Waste Framework Directive (WFD) to be extended to cover “harvest food waste” - edible food that is mature and ready for harvest but wasted at the harvest stage by being ploughed back in or left to rot, and for this to be reported at primary production level. Between 11% and 34% of EU food waste is wasted on farms – between 10 and 47 million tonnes annually – and the majority of this is harvest food waste.**

**We call for clarification that food which is wasted post-harvest at later stages of the supply chain and then returned to the farm to be ploughed back into the field should be reported at the supply chain stage at which it is wasted before it is returned to the farm (e.g. processing and manufacturing)**

**If it is not legally possible to include harvest food waste in compulsory measurement, the Commission should:**

- **Add harvest food waste as an additional point (f) under Article 3 which member states can voluntarily report on.**
- **Provide examples of some means of harvest food waste measurement in Annex III and IV – such as physical measurement, crop-cutting surveys or visual assessments.**
- **Recommend as best practice to member states that they measure and report harvest food waste, in the recital text**
- **Fund several member states to conduct pilot studies of harvest food waste in their countries**

### **Recital (3) concerning Article 2 of Regulation (EC) 178/2002:**

**We strongly oppose the following legal opinion in Recital (3) and urge for this passage be removed:**

*“Food waste does not include losses at stages of the food supply chain where certain products have not yet become food as defined in Article 2 of Regulation (EC) No 178/2002, such as edible plants which have not been harvested.”* Article 2 of Regulation (EC) 178/2002 covers “all aspects of the food production chain as a continuum from and including primary production [...]” and “primary production” means “the production, rearing or growing of primary products including harvesting [...]”. It only excludes “plants prior to harvesting”<sup>1</sup>. Therefore, the regulation only legally excludes preharvest food waste (inedible plants) which have not yet been harvested – to exclude harvest food waste (edible plants) as well is a political decision not demanded by the legal text. Most respected international definitions of food waste like the FLW Standard define “pre-harvest” food waste as “*before a raw material for food is ready for harvest or slaughter*”<sup>2</sup>, and include in measurement food that is ready for harvest and fully mature/grown, but is wasted at the point of or during the harvesting process, as a result of the farmer ploughing it back in or leaving it to rot (usually due to reasons outside of their control). FUSIONS counted food waste from “when crops are mature for harvest”<sup>3</sup> and the FAO says nations can voluntarily add reporting of harvest food waste to their reporting under the Food Loss Index<sup>4</sup>. Furthermore, Champions 12.3 published recommended best practice for nation states in achieving SDG 12.3, advising that states “should apply the “halve per capita” in practice to food losses [i.e. pre-retail food waste], as well, not just to food waste” – and that this should cover “from the point that crops and livestock are ready for harvest or slaughter through to the point that they are ready to be ingested by people”<sup>5</sup>.

### **Article 1(4)(a) and Recital (7) concerning Article 2(1)(f) of Directive 2008/98/EC:**

*“The measurement of food waste shall not cover the following items: (a) agricultural material referred to in Article 2(1)(f) of Directive 2008/98/EC” - Article 2(1)(f) of the Waste Directive* excludes from its scope: “*faecal matter, if not covered by paragraph 2(b), straw and other natural non-hazardous agricultural or forestry material used in farming, forestry or for the production of energy from such biomass through processes or methods which do not harm the environment or endanger human health*”. This statement is ambiguous and the Commission seems to be advocating here that “non-hazardous agricultural material” covers *food* – thus excluding from measurement both: 1) edible food that is mature and ready for harvest but wasted at

the harvest stage by being ploughed back in or left to rot, and 2) food which is wasted post-harvest at later stages of the supply chain and then returned to the farm to be ploughed back into the field. We would argue that edible food is not “used” in farming, but is itself the “product” of farming – by being wasted in the field a large part of its financial, nutritional and environmental value is wasted too. Farmers almost always intend for the food they produce to be sold as a product but because of actions by other supply chain actors, such as cosmetic outgrading or Unfair Trading Practices by retailers, are forced to waste the food, not using it for its original purpose. Ploughing edible food back into the field often results in extremely few nutrients being returned to the soil, resulting in limited use for the farmer. Most importantly, this produce does significantly “harm the environment” by being wasted. For many food products, the majority of their environmental impact occurs before or during harvest on the farm. Agriculture accounts for approximately 10% of the EU’s total greenhouse gas emissions<sup>6</sup>, 44% of total water abstraction<sup>7</sup>, and 40% of total EU land<sup>8</sup> - and ploughing food back into the field leads to substantial waste of those resources, contributing to devastating climate change. The FAO estimate that globally the carbon footprint of food waste during agricultural production is higher than for processing and distribution<sup>9</sup>. In all respected international agreements on food waste, food which is composted is counted as waste, and the Commission itself counts food going to compost as waste (acknowledgement of negative environmental impact) for all other stages of the supply chain for the purposes of measurement in this delegated act – it would be inconsistent to count food waste going to compost as waste for other businesses but not on-farm.

**Food which is wasted post-harvest at later stages of the supply chain and then returned to the farm to be ploughed back into the field should be measured and reported as food waste at the stage of the supply chain it has reached when it is decided it will not reach human consumption. This should be explicitly clarified in the Article or Recital text.** For instance, if produce has been harvested and sent to a packhouse for cosmetic grading, and then 20% of produce is wasted and returned to the farm, the waste should be measured as “food waste” at the packhouse and reported under Article 1(1)(b) “processing and manufacturing”. Leaving this unclarified would create a disastrous loophole, which would enable any food business to send its food waste to farms, and thereby effectively erase their food waste from statistics. This would harm member state efforts to tackle food waste, and create perverse incentives for more food waste to be dumped on farms by their suppliers.

**We recommend that the Commission clarify that Article 2(1)(f) of Directive 2008/98/EC does not exclude from measurement edible food that is mature and ready for harvest but wasted at the harvest stage by being ploughed back in or left to rot.** If measurement of harvest food waste is still considered to be outside the legal scope of the Waste Framework Directive, **we recommend the introduction of voluntary guidelines for measurement (see below).**

#### **Article 3 – (a), (c) and (d)**

We commend the provision of guidelines for member states to voluntarily report on edible vs. inedible food, and food currently sent to destinations of animal feed and charitable redistribution. **In the Recital text, we encourage the Commission to recommend as best practice to member states that they report this information in addition to the compulsory reporting, and that member states makes efforts to move food waste as high up the waste hierarchy as possible** – prioritising getting edible food to human consumption.

#### **Article 3 – suggested addition (f), and Annex III/IV:**

If measurement of harvest food waste is still considered to be outside the legal scope of the Waste Framework Directive, **we call for harvest food waste to be added as an additional category which member states are encouraged to voluntarily report on, as an additional point (f) under Article 3 – that is, edible food that is mature and ready for harvest but wasted at the harvest stage by being ploughed back in or left to rot.** There is no legal barrier to member states voluntarily reporting on harvest food waste if they want to as a bolt-on to compulsory reporting under the Waste Framework Directive, so there is no good reason why the Commission should actively impede member states from measurement by providing no guidelines for measurement. Without guidelines, member states may fear reporting on their own, in case they invest time/energy in measurement which later turns out to be redundant because it is not harmonised with EU or other member states methodologies, and this will

significantly damage member states' efforts to tackle food waste on-farm. **We recommend that the Commission provides examples of some means of harvest food waste measurement in Annex III and IV – such as physical measurement, crop-cutting surveys or visual assessments, in harmonisation with the FAO's Food Loss Index.**

#### **Farmer welfare and concerns:**

Farmers in the EU are concerned that food waste reduction will become tied to subsidy payments – resulting in farmers being punished for high food waste levels by payments being removed. This is understandable, because farmers are often forced to bear huge losses of money, time and resources and as a result of the risks and costs of food waste being pushed onto them by companies further up the supply chain. Thus, if subsidies become tied to food waste, farmers will be punished twice for a problem largely outside of their control – firstly due to financial losses from food waste, and secondly through loss of subsidy payments.

Food waste on farms is usually caused by factors outside of farmers' control – such as Unfair Trading Practices and cosmetic rejections by retailers. Exclusion of harvest food waste from measurement will likely mean EU farmers will continue to bear the large costs and risks of food waste, significantly harming their livelihoods. Additionally, it may create perverse incentives for member states and companies to achieve reductions in measured food waste by pushing food at risk of going to waste onto farmers. This could exacerbate the risk of Unfair Trading Practices, which the Commission has expressed a desire to tackle<sup>10</sup>. In contrast, farmers stand to benefit from measurement of farm food waste. For instance, when Feedback collaborated with chef Hugh Fearnley-Whittingstall to broadcast on primetime TV that one farm was wasting 20 tonnes of parsnips per week to cosmetically outgrading, this caused many UK retailers to launch wonky fruit and veg ranges - Tesco report that since launching their "Perfectly Imperfect" line, the proportion of their producer's apples they can take rose from 87% to 97%.

**To protect farmers rather than punish them, policies for the measurement and reduction of food waste on farms should take a whole supply chain approach, recognising power relations between retailers and their suppliers which lead to food waste – giving farmers support, and ensuring that retailers and middlemen take responsibility and action to implement solutions.** Solutions should be sought such as removing retailer policies which incentivise overproduction, regulating Unfair Trading Practices and relaxing retailer cosmetic specifications. Because all other food waste policy at EU level currently sits under the Waste Framework Directive, excluding harvest food waste from this delegated act would effectively artificially separate farm-level food waste from the rest of the supply chain and treat it in isolation, which is entirely inappropriate. **The Commission should therefore seek to integrate actions to prevent food waste on farms as much as possible with the Waste Framework Directive and Unfair Trading Practices regulation – with the inclusion of harvest food waste in this delegated act as a starting point.** Including food waste in this delegated decision is an important means to protect farmers from companies pushing food waste, and its costs, onto their suppliers through Unfair Trading Practices – evidence of food waste occurring on farms is a valuable indication of unfair conduct. The Groceries Code Adjudicator in the UK said that "If retailers only knew just how much waste their forecasting was generating, they would surely do something about it"<sup>11</sup> – increased awareness by member state governments and the public created by transparent data can also help drive positive changes for farmers.

#### **Potential scale of EU harvest food waste:**

Science and Technology Options Assessment (STOA) for the European Parliament estimated that, based on the 2011 FAO methodology, 34% of EU food waste occurs at agricultural level<sup>12</sup>, 47 million tonnes annually. The report provides estimates by member state here, which range from 20-45% for different EU countries:

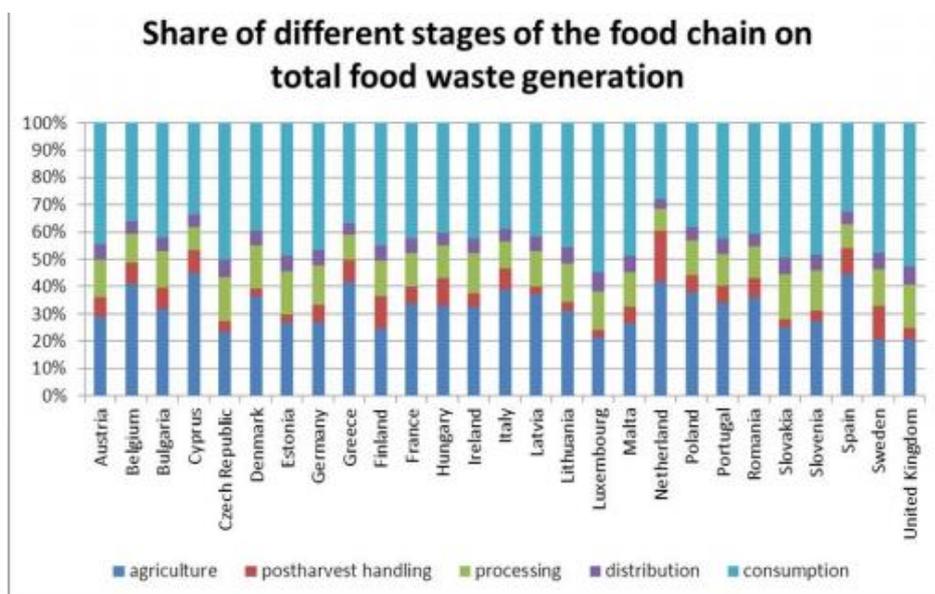


Figure 2: Share of the different stages of the food chain on total food waste generation across EU-27 in 2006 (ITAS-calculations)

The FUSIONS estimate for primary production food waste is dramatically lower, at 11% of the EU's total food waste, 10 million tonnes annually<sup>13</sup>. Both reports are based on very limited data and the real result could be anywhere between 11-34%. Either way, the scale is significant, and it is not acceptable that over a third of the EU's food waste could potentially be excluded from reporting. WRAP's provisional estimate for UK food waste at primary production is 2.5 million tonnes annually (20% of the UK's total food waste)<sup>14</sup>, and a French study found an estimated 3.2 million tonnes of food wasted at primary production (32% of France's total food waste)<sup>15</sup>.

#### Readily available methodologies for measuring harvest food waste:

FAO states that harvest food waste "can be added to the loss coverage and measured with crop-cutting surveys"<sup>16</sup>. North Carolina State University provide clear guidance for how to measure harvest food waste<sup>17</sup> and WRAP and LEAF's *Food Waste Matters* gives guidance on how to take measurements of harvest food waste. WRAP have also developed a strong model for member states to use for national measurement of harvest food waste, which could be rolled out throughout the EU (also attached with this consultation response). Lack of current data only shows the urgent need for the EU to gather data in future. Food waste on farms is comparatively concentrated (compared to millions of separate households), usually a field will grow one food type, and do not need separating from packaging. Individual farms can experience thousands of tonnes of waste, creating economies of scale which mean the right targeted policy changes at harvest level could have very high environmental impact.

#### Conclusion:

Up to 34% of the EU's food waste occurs on farms – the Commission excluding harvest food waste from this delegated act would send the message that farm food waste is insignificant, and seriously inhibit member states measuring and reducing this food waste. The Commission should take this opportunity to help EU farmers improve their livelihoods, create a safe environment for our children, and ensure that nutritious food from farms gets to be eaten by the hungry people of Europe rather than wasted.

**Note:** We use the term "food waste" to cover all stages of the supply chain, since "food loss" implies that human agency is not involved in causing waste before retail level, and the solutions needed are purely technical. Feedback's research suggests that, particularly in developed countries<sup>18</sup> but also in developing countries<sup>19</sup>, food waste before retail level is often caused by issues such as power relations across supply chains, unfair trading practices like order cancellations, and rejections due to cosmetic standards – all a result of human agency.

## References:

---

- <sup>1</sup> REGULATION (EC) No 178/2002 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (2002) <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:031:0001:0024:en:PDF>
- <sup>2</sup> Food Loss and Waste Protocol (2016), *Food Loss and Waste Accounting and Reporting Standard* [http://flwprotocol.org/wp-content/uploads/2017/05/FLW\\_Standard\\_final\\_2016.pdf](http://flwprotocol.org/wp-content/uploads/2017/05/FLW_Standard_final_2016.pdf), p19
- <sup>3</sup> FUSIONS (2016), *Estimates of European food waste levels* <http://www.eu-fusions.org/phocadownload/Publications/Estimates%20of%20European%20food%20waste%20levels.pdf>, p7
- <sup>4</sup> FAO (2017), *State-of-play on the Global Food Loss Index to monitor SDG target 12.3* [https://ec.europa.eu/food/sites/food/files/safety/docs/fw\\_eu-platform\\_20171107\\_sub-fd\\_pres-03.pdf](https://ec.europa.eu/food/sites/food/files/safety/docs/fw_eu-platform_20171107_sub-fd_pres-03.pdf), p5
- <sup>5</sup> WRI (2017), *Guidance on Interpreting Sustainable Development Goal Target 12.3* <http://flwprotocol.org/wp-content/uploads/2017/08/Champions-12.3-Guidance-on-Interpreting-SDG-Target-12.3.pdf>
- <sup>6</sup> EUROSTAT (2017), Agri-environmental indicator - greenhouse gas emissions [http://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental\\_indicator\\_-\\_greenhouse\\_gas\\_emissions](http://ec.europa.eu/eurostat/statistics-explained/index.php/Agri-environmental_indicator_-_greenhouse_gas_emissions)
- <sup>7</sup> European Commission (2018), *Agriculture and water* [https://ec.europa.eu/agriculture/envir/water\\_en](https://ec.europa.eu/agriculture/envir/water_en)
- <sup>8</sup> EUROSTAT (2015), *Farm structure statistics*. [http://ec.europa.eu/eurostat/statistics-explained/index.php/Farm\\_structure\\_statistics](http://ec.europa.eu/eurostat/statistics-explained/index.php/Farm_structure_statistics)
- <sup>9</sup> FAO (2013), *Food wastage footprint and climate change* <http://www.fao.org/3/a-bb144e.pdf>, p21
- <sup>10</sup> European Commission (2017), *Press release: Towards a fairer food supply chain: European Commission asks for input* [http://europa.eu/rapid/press-release\\_IP-17-2521\\_en.htm](http://europa.eu/rapid/press-release_IP-17-2521_en.htm)
- <sup>11</sup> <https://www.thegrocer.co.uk/waste-not-want-not/forecast-and-promo-failures-driving-waste-warns-tacon/560504.article>
- <sup>12</sup> STOA. 2013. 'Technology Options for Feeding 10 Billion People - Options for Cutting Food Waste'. Science and Technology Options Assessment for the European Parliament. [http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/513515/IPOL-JOIN\\_ET%282013%29513515\\_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/etudes/join/2013/513515/IPOL-JOIN_ET%282013%29513515_EN.pdf)
- <sup>13</sup> FUSIONS (2016), *Estimates of European food waste levels* <http://www.eu-fusions.org/phocadownload/Publications/Estimates%20of%20European%20food%20waste%20levels.pdf>
- <sup>14</sup> Quinn (2017), *Food waste efforts wasted without Courtauld collaboration*, The Grocer <https://www.thegrocer.co.uk/home/topics/waste-not-want-not/food-waste-efforts-wasted-without-courtauld-collaboration/559085.article>
- <sup>15</sup> ADEME. 2016. 'Pertes et gaspillages alimentaires : l'état des lieux et leur gestion par étapes de la chaîne alimentaire'. ADEME. <https://www.ademe.fr/sites/default/files/assets/documents/pertes-gaspillages-alimentaires-etat-lieux-201605-synt.pdf>
- <sup>16</sup> FAO (2017), *State-of-play on the Global Food Loss Index to monitor SDG target 12.3* [https://ec.europa.eu/food/sites/food/files/safety/docs/fw\\_eu-platform\\_20171107\\_sub-fd\\_pres-03.pdf](https://ec.europa.eu/food/sites/food/files/safety/docs/fw_eu-platform_20171107_sub-fd_pres-03.pdf), p5
- <sup>17</sup> PDF guide: <https://content.ces.ncsu.edu/increase-vegetable-yield-by-reducing-field-losses>  
Video guide: <https://www.youtube.com/watch?v=K9dE9EavUSg&feature=youtu.be> and <https://www.youtube.com/watch?v=Nb-nUubV16Y>
- <sup>18</sup> Feedback (2018), *Farmers talk food waste: supermarkets' role in crop waste on UK farms*, London: Feedback [https://feedbackglobal.org/wp-content/uploads/2018/02/Farm\\_waste\\_report.pdf](https://feedbackglobal.org/wp-content/uploads/2018/02/Farm_waste_report.pdf)
- <sup>19</sup> Feedback (2017), *Causes of food waste in international supply chains*, London: Feedback [https://feedbackglobal.org/wp-content/uploads/2017/05/Causes-of-food-waste-in-international-supply-chains\\_Feedback.pdf](https://feedbackglobal.org/wp-content/uploads/2017/05/Causes-of-food-waste-in-international-supply-chains_Feedback.pdf)