**Sampling point-focussed harvest evaluations in cereal crops**

**Date**: October 25th 2019



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# **1 Summary Information**

## **1.1 Partner Summary**

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| **SOP Code** | EU\_TRUE\_SOP\_060 |
| **TRUE Partner Acronym** | STC |
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| **Linked Reference and Hyperlink**  **(if available)** | NA |
| **Associated files to use with the SOP [and function]** | NA |

## **1.2 SOP Summary**

**Title**

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| **Sampling point-focussed harvest evaluations in cereal crops** |

**Brief description**

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| In replicated trials, it is not always possible to evaluate various aspects of harvest product and yield to a plot/sampling point level with a standard combine. In such cases, it is necessary to perform a manual harvest at each assessed sampling point, with subsequent manual threshing and separation for evaluation. This SOP describes the procedure undertaken by STC. |

# **Protocol Steps**

1. Select a representative area at the sampling point.
2. Place a quadrat (minimum 0.25m2) on the ground to mark the selected area. Manually harvest by cutting, with sharp scissors, the harvestable product within the entire area marked by the quadrat. Carefully gather into a labelled bag.
3. Count the number of tillers – this can be done in one of two ways:
   1. the number of tillers for each of at least five plants *per* quadrat; or
   2. the number of tillers within each quadrat.
4. Count the number of ears harvested within each quadrat.
   1. If required, record the length of each ear (of at least ten ears *per* sampling point) using a ruler.
5. Separate the ears from the straw using scissors.
6. Weigh the ears to obtain fresh sample weight.
7. Weight the straw to obtain fresh straw weight.
8. Using a ruler and/or an accurate digital calliper, measure and record the length and width of ten segments of straw (respectively).
9. Extract a sub-sample of ears for drying and weigh (this may be less than the total sample, as is dependent on space available for drying of samples).
10. Extract a sub-sample of straw for drying and weigh (this may be less than the total sample, as is dependent on space available for drying of samples).
11. Dry sub-samples of plant material in an oven at 70°C.
12. Re-weigh periodically until a stable weight is recorded. Record at each interval to monitor when this occurs.
13. Data can be extrapolated to calculate yield in tonnes *per* hectare.
14. Dry matter content may also be calculated:
15. Repeat the above for each sampling point.

# **3 Linked SOPs**

Not Applicable

# **4 Disclaimer**

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# **6 Citation**

Please cite this report as follows:

Banfield-Zanin, J.A. & Milson, G. (2019). Standard Operating Procedure 060: Sampling point-focussed harvest evaluations in cereal crops. Developed by the EU-H2020 project TRUE (‘Transition paths to sustainable legume-based systems in Europe’), funded by the European Union’s Horizon 2020 Research and Innovation programme under Grant Agreement Number 727973.