P03: Crop phenology, rotation, and number of seasons

Maturity score

Mean: 2.9	**STD:** 0.3

Constraints and limitations

- Cloud presence
- The lack of local in-situ data to train the machine models

Relevant user needs

UN18: Need to monitor crop productivity.

R&D gaps

- The limited temporal resolution can make it challenging to capture specific phenological changes or detect short-duration crops accurately.
- May not directly capture the underlying physiological processes driving phenological stages, limiting the understanding of crop responses to environmental stressors.

Potential improvements drivers

- Higher temporal resolution EO data with adequate spectral bands.

Utilisation level review

Utilisation score

Mean: 2	**STD:** 0.58

No utilisation:

Users' lack of EO knowledge and skills to utilize the EO product.

Low utilisation

- Unawareness of the existence of commercial EO products with better specifications.
- Higher cost of using the commercial EO product.

Medium utilisation

High utilisation

Critical gaps related to relevant user needs

Guideline gap

UN18: Need to monitor crop productivity