

SITES Agroecological Field Experiment

An infrastructure in southern Sweden for cropping systems research in conventional, organic, and perennial agriculture

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SITES Agroecological Field Experiment (SAFE)¹ is openly available for research in e.g. agronomy, biology, economics, food systems, soil science and sustainability.

Using SAFE is free of charge, and agreements can be made for additional treatments and measurements.

BACKGROUND

SAFE was established 2016 in southern Sweden (Fig. 1), as part of the Swedish Infrastructure for Ecosystem Science (SITES).

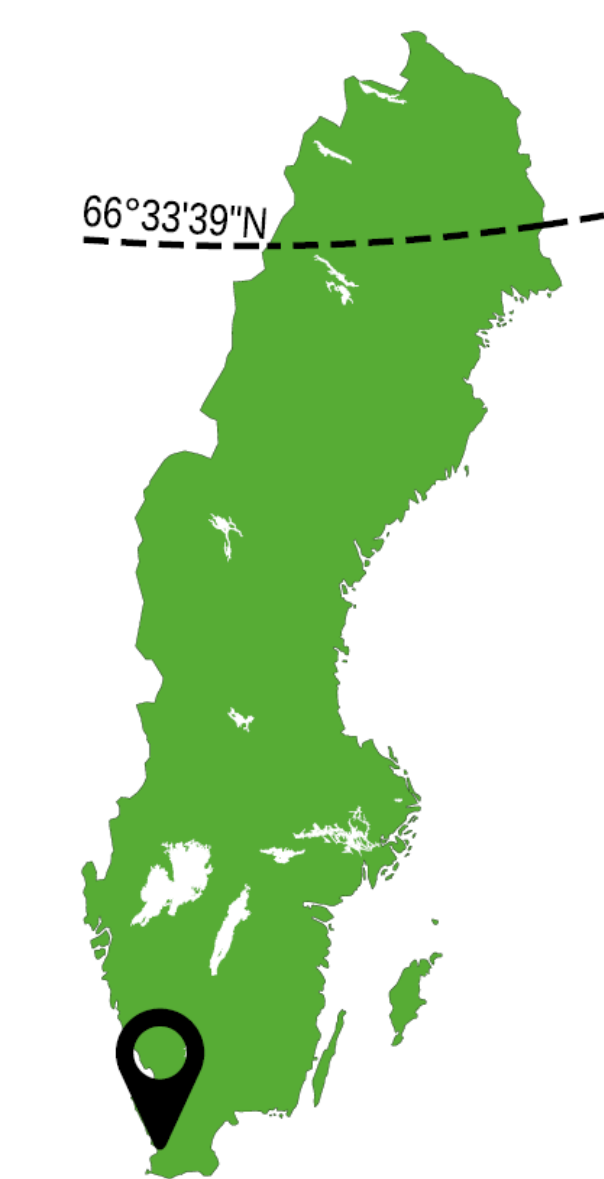


Fig. 1. Geographical location of SAFE.

Four cropping systems are managed in large experimental plots, in 4 replicate blocks (Figs. 2 & 3). Data on crop management and yields are available in the SITES data portal².



Fig. 2. Overview of SAFE. Photo: Ryan Davidson, SLU.

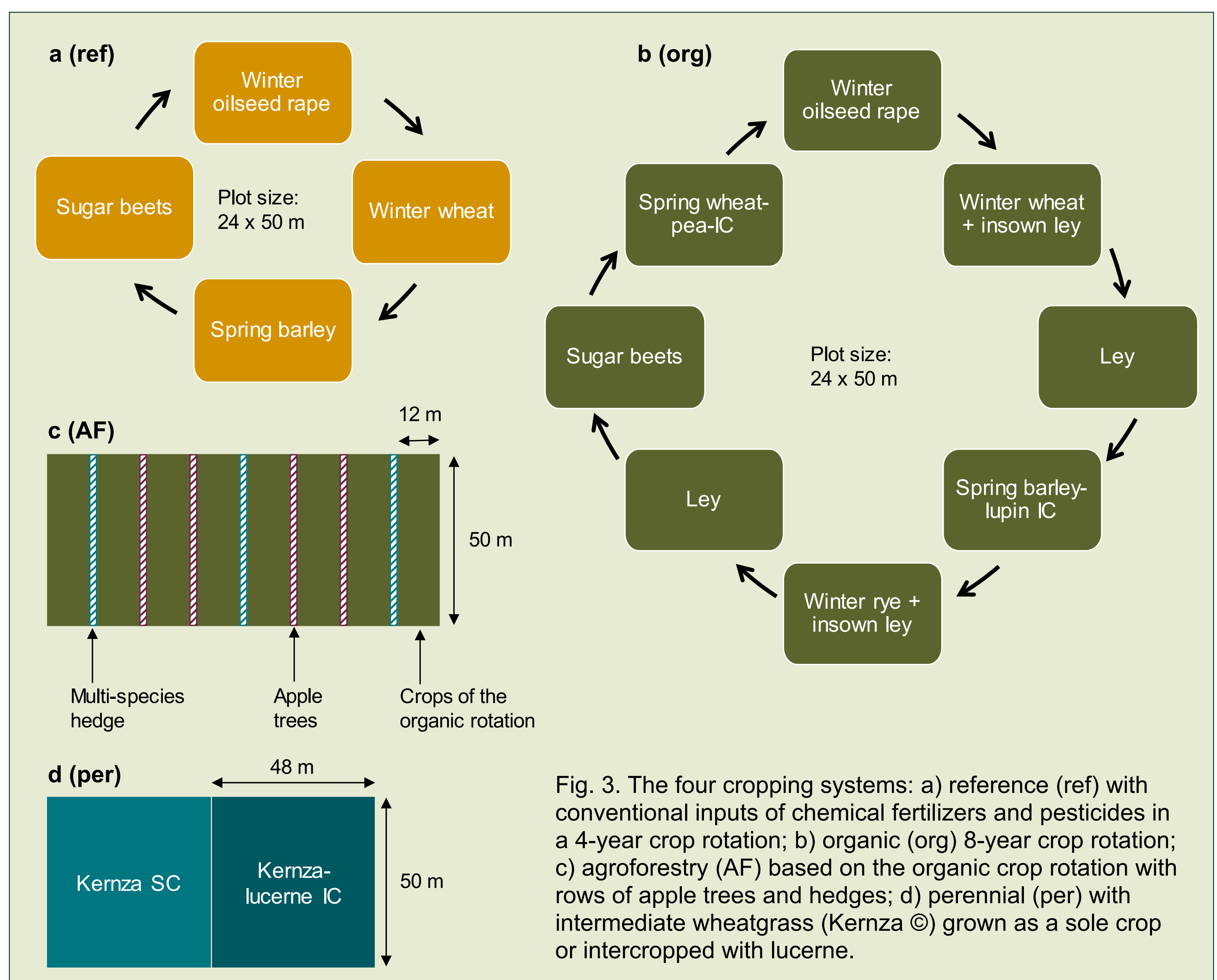


Fig. 3. The four cropping systems: a) reference (ref) with conventional inputs of chemical fertilizers and pesticides in a 4-year crop rotation; b) organic (org) 8-year crop rotation; c) agroforestry (AF) based on the organic crop rotation with rows of apple trees and hedges; d) perennial (per) with intermediate wheatgrass (Kernza ©) grown as a sole crop or intercropped with lucerne.

RESULTS

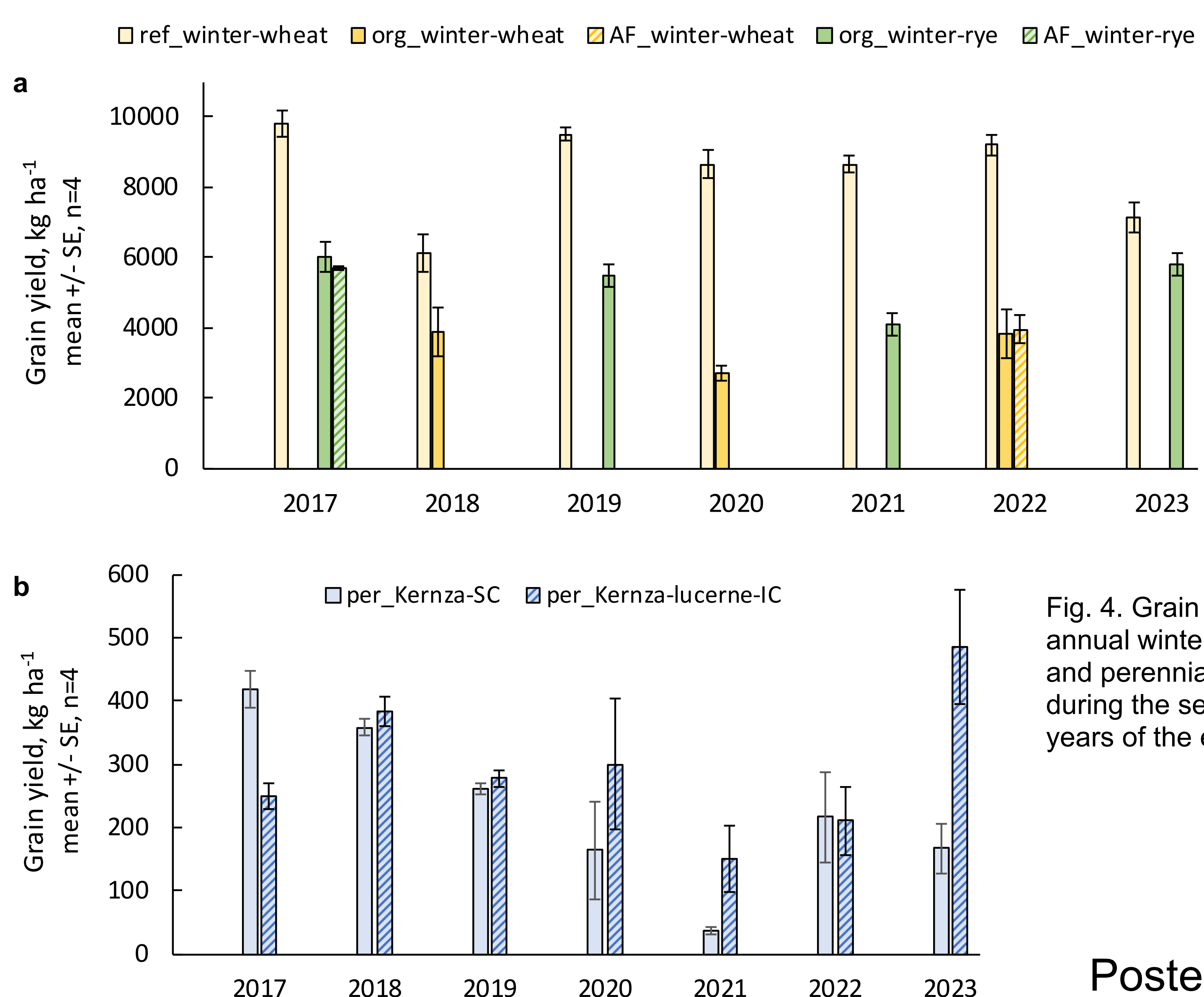


Fig. 4. Grain yields of the annual winter cereals (a) and perennial Kernza (b) during the seven first years of the experiment.

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Further reading:

¹ Barreiro, A., Albertsson, J. (2022). SITES Agroecological Field Experiment (SAFE) - Description. Swedish Infrastructure for Ecosystem Science (SITES). <https://doi.org/10.23700/4ASX-8870>

² www.fieldsites.se