

Digital technology in farming

By improving production, tracking products, and cutting down on labor-intensive tasks, digital technology is now a fact of farming life.

1 Satellites enable data transmission and help monitor individual land parcels, providing information on land use, yields, and crop development.

2 Collars fitted with transmitters allow cows to move freely between the cowshed, the milking parlor, and the fields. They transmit information on the behavior of both individuals and the herd.

3 Robots not only provide automated milking but also analyze the milk itself. Information on protein content, density, or the presence of antibiotics or parasites goes directly to the farmer via a server.

4 Data on milk production levels, veterinary visits, herd numbers, and forage supplies help farmers to manage their farms.

5 Weather stations measure air humidity, temperature, and wind strength. These factors determine the growth of meadows and crops.

6 Guided by leaf colour, robots identify whether a vine is diseased and apply targeted spraying.

7 Robots follow pickers during harvesting for fruit and vegetables, relieving them of their loads.

8 Drones equipped with cameras or thermal sensors overfly fields and transmit data on the condition of soils and crops.

9 The data transmitted to farmers via mobile phone satellite networks or short-wave radio (where there is no mobile phone coverage), allow them to monitor yields and soil moisture levels and warn them of bad weather.

10 Networked grain silos provide tailored remote alerts for humidity and temperature levels, warning farmers when mold might appear in the grain and cutting waste by 10%.

11 Networked traps in orchards allow pests identification and alert farmers of their presence. They also send the data to the National epidemic monitoring service.

12 Data on the origin, mode of production, and processing of food ensures that food products can be traced from the producer right through to the consumer, regardless of the sales route (farm gate, local groups supporting small farmers [AMAP], shops), using labelling and applications such as Yuka.

