

# HOLT & DISTRICT FARMERS' CLUB

FOUNDED 1948

President: Richard Brooks

Chairman: Pat Cubitt

Vice-Chairman: Andrew Ross

[www.holtfarmers.club](http://www.holtfarmers.club)

## CLUB MATTERS New Year 2023

My supersub/secretary has been at it again and this is **Michael's** prompt review of the excellent talk we had from Kit Franklin on Tuesday. I found it encouraging in how the focus was on precision which ever bigger machinery has difficulty in providing added to which compaction can be avoided by the small scale lightweight machinery (kit with a small k) involved. It was good to have our old and new Treasurers present with **Tony** teaching **Laurie Hill** the ropes although Laurie was confident when giving the vote of thanks. With four Christian names and about to become a partner at Larking Gowen we are in good hands.

*Tim*

Nature-friendly arable multi-cropping is the next goal for field-scale trials, said a leading engineer in robotic techniques.

Kit Franklin, of Shropshire-based Harper Adams University, briefed an enthusiastic audience of more than 30 Holt & District Farmers' Club members at the January meeting about the successful "Hands-Free Hectare" project.

The current challenge was to grow three arable crops – wheat, barley, beans and nature-friendly seed mixes – in the same field using "Hands-Free" techniques.

Mr Franklin, a senior engagement engineering fellow, said that the relentless drive for bigger and even more powerful machinery to grow crops was not sustainable. For example, ploughing a hectare involved moving an estimated 1,900 tonnes of soil but using robotic planting techniques, it was just 11.7 tonnes per ha.

The "Hands-Free" system has worked – and was more profitable. He said the university's farm used smaller tractors, typically about 38hp, which reduced investment in expensive machinery. His robotic system was able to harvest about 10 acres a day, using a two-metre wide combine.

In addition, his lighter-weight tractors were more timely. After a very wet winter with 117 "rain days" out of 160 between October 17 and March 18 last year, he was able to apply nitrogen to his wheat at least a week earlier than neighbouring farmers. It yielded 9.19t per ha (and 9.27t ha in 2021) while the winter beans yielded 4.4t per ha (4.6t in 2021).

Mr Franklin said this year, he planned to grow blocks of wheat, barley and beans in the same field as well as sowing nature-friendly wildflower mixes in tramlines. With precision robotics, capable of working to 20mm accuracy, there could be major advantages for such a patchwork approach. If disease came into a block of wheat, it would not necessarily spread right across the field.

For smaller arable farms, adopting robotic systems would make economic sense, he argued.

Mr Franklin also welcomed an initiative from the British Standards Institute, which has just produced a code of practice (BS8646) for robotic farming in agriculture and horticulture.

In addition, there were more in-field robotics being delivered, for example, some 250 solar-powered planters/weeders had been sold by Danish-based FarmDroid. About a dozen were now working in England, which cost in the region of £65,000 and were capable of "farming" a block of about 15ha.

He also outlined a number of other exciting developments and answered questions in a 90-minute session from members. Pat Cubitt, chairman, thanked him for such a fascinating overview.

M. B. POLLITT

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