

## **Purple tomatoes could be on the menu -**

Stalham Farmers' Club, December 8, 2021 at North Walsham Rugby Club, Scottow.

A total of 14 members and guests enjoyed a supper of steak and kidney pie and Christmas pudding.

More than 25 members were welcomed to the second (and final) meeting of 2021 by Chris Borrett, chairman. The speaker was award-winning plant science researcher Prof Cathie Martin, of the John Innes Centre.

Apologies – Michael Eales, Peter Gardiner, Sam Summers, John Grier, Nicholas Deane, James Deane.

Secretary's report – A keen supporter of the club, Sarah Bebb, who has judged the sugar beet competitions for the past nine years, has taken up a new position in the plant breeding sector and will leave British Sugar at the end of December. A club member, her help was invaluable in running the long-standing two-acre beet competition. We wish her well with her new career.

Grain competitions – A final request for entries for the wheat and barley competition was made. Samples could be left with Chris Borrett, of Adams & Howling, or at Neale Sands' office at Brumstead, by mid-December.

The chairman formally introduced Prof Cathie Martin, of the John Innes Centre. Made MBE in 2013 for her contribution to plant science research and also a Fellow of the Royal Society in 2018, she was the latest winner of the Rank Prize for Nutrition and will be presented with her award in London next month. She is only the fourth winner of the Rank Prize in the 40-year history of the John Innes Centre.

Prof Martin, who came to Norwich in 1983, has been involved in plant science research partly as a way of improving human health, diet and nutrition. She outlined the progress in a long-term programme of producing "health-giving" tomatoes, which should become available in the United States from next spring. These purple tomatoes contain much higher levels of anthocyanins – antioxidant nutrients – which can have significant benefits in human diets.

It was an exciting field because she was driven by the goal of producing better, tastier, health-giving plants rather than relying on taking vitamin supplements.

Society faced serious challenges caused by a combination of poor diet and consuming too much of the wrong type of foods – hence rising levels of obesity and diabetes. In addition, typical consumer expenditure on food has fallen significantly in the past half century as a percentage of household spending. "We have to improve our diet," she argued. And by eating smarter, there would be significant other benefits. In a major study of more than 300,000 adult deaths from cancers, a lack of fruit and vegetables was the second biggest factor after tobacco in men but it was the fifth in women. After tobacco, obesity was the second highest in women's mortality.

While much progress has been achieved and the benefits of so-called “super fruits and fruits” was being recognised as improving diet and thus health, Prof Martin argued that much more could be achieved by practical research into plants. A switch to healthier foods and thus diet can improve health outcomes.

It was now recognised that including more fresh fruit in the daily diet – for example 70g of blackberries, or three purple peppers, or even three purple fleshed potatoes or just two purple tomatoes could deliver a proportion of the suggested 125mg/ daily antioxidant nutrients.

However, one of the world’s most popular fruits – the tomato – could deliver real benefits, she suggested. Her team had been researching “purple” fruit since 2008 and now these improved tomatoes could be given regulatory approval by next spring in the United States. These purple tomatoes were tasty and had health-giving properties, which could improve diets.

Prof Martin brought a dozen purple tomatoes, grown in at the John Innes Centre, for members to inspect. There were several different varieties, which all looked extremely attractive and had that lovely smell of a fresh-picked tomato. As they were all counted back, she explained that there might be an opportunity to grow these varieties in Britain when the regulatory reviews had been completed. The first stage was receiving approval in the United States, she said.

In a 40-minute question and answer session, members were clearly fascinated by the potential of this exciting research using gene-editing techniques. The club’s vice-chairman, Will Sands, gave the vote of thanks.

Prof Martin was presented with a copy of Alec Douet’s history of Norfolk agriculture, *Breaking New Ground*, by the chairman. The meeting was closed at 8.45pm.