Extended Abstract

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Paper Title	'Farms like mine': a big data method in peer matching for agricultural

Abstract prepared for presentation at the 93rd Annual Conference of the Agricultural Economics Society, University of Warwick

16 – 18 April 2018

Abstract	***200 words max***
To find opportunities to improve efficiency, farms are often compared on the basis of standard typologies (ie. categorisations). For example the EU "specialist cereals-oilseed-pulses" or in Britain "general-cropping". These categories, being aggregates, contain significant numbers of atypical enterprises. For example, there are 30 cattle and 60 sheep, on the average "general-cropping" farm in	

Keywords	Agriculture, Benchmarking, Farm typologies, Peers, Performance
JEL Code	Q120 see: www.aeaweb.org/jel/guide/jel.php?class=Q)

Introduction	***100 – 250 words***
Individual farmers generally have little basis by means of which to assess their individual performance. Every farm is different, comprised of a number of different enterprises and generating a variety of different income streams. However, it is clearly helpful for individual farmers to be able to have some standard against which to judge their performance, to identify areas in which they may be underperforming, and aspects of the business that could be improved. Benchmarking is an increasingly	

Methodology	***100 – 250 words***
A novel method - to get around the problem of where conventional "farm type" categories include substantial production in enterprises that, typically, "my farm" has zero of - is proposed. That matches farms to all farms in the comparator group (survey sample), and selects the nearest neighbours in 34 dimensions. Including in the matching almost all characteristic enterprises for English farms. As well as tenure and geographic proximity. Means and other statistics are then calculated, "on the fly" so to	

Results	***100 – 250 words***
34 dimensions are chosen for Britain. Namely: winter wheat area; winter barley area; spring barley area; other cereals area; oilseeds area; peas beans area; potatoes area; sugar beet area; other arable crops area; fodder crops area; fallow area; uncropped area; temporary grass area; permanent grass area; sole rough grazing principle area; top	

Discussion and Conclusion	***100 – 250 words***
This paper has demonstrated a new approach to benchmarking. While this has been applied to farms, there is no reason in principle why it should not be applied in other sectors. However the need for benchmarking in agriculture is clear for a range of reasons. Levels of productivity in UK farming are relatively low, compared with other similar countries, and the rate of productivity increase is low. Also, there is dire need to mitigate greenhouse emissions. And it is clear from the Farm Business Survey that	