



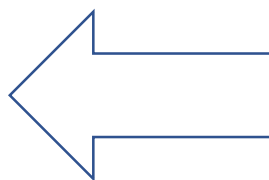
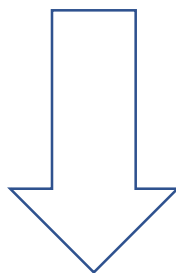
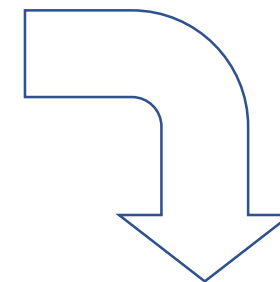
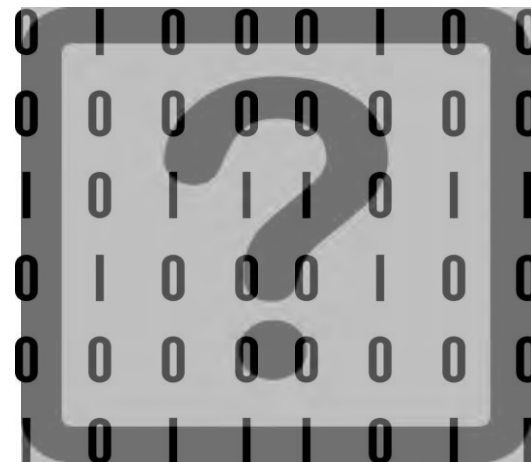
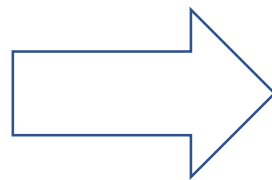
Australian Farm Institute

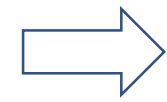
Richard Heath
@richardaheath
@austfarminstitu

The economic value of digital farming.

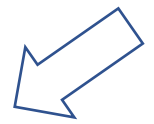
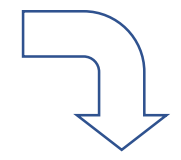


Australian Farm Institute





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Crop nutriti

9.3

- Crop protection and weed control

Crop protec
weed contro

3.4

- Targeted application of fungicides and pesticides directed by remote and proximal sensing combined with modelled and machine learned data. Targeted in-crop control of weeds through remote or proximal sensing of weeds versus crop or map based spraying based on previous weed history

Operational
efficiencies

1.2

Irrigation pl
scheduling
application

4.8

Labour savi

3.1

Improved fi

7.7

Improved n

1.1

Reduction i
chain costs

5.9

- Chemical use efficiency increases by 10%

- GVP \$13.4 million



Unconstrained digital agriculture will deliver \$ to producers

Estimated potential increase in gross value of production (GVP) by agriculture^{iv}

\$20.3 billion

(25% increase on 2014-15 levels)



Overall potentially increasing National GDP by

\$24.6 billion

(a 1.5% increase on 2014-15 levels)



ESTIMATED POTENTIAL GVP IMPACTS FROM INDUSTRIES WORKING TOGETHER



Automation and labour savings \$7.4B

e.g. machinery, animal handling & product processing



Genetic gains through objective data \$2.9B

e.g. animal & variety selection



Tailoring inputs to need \$2.3B

e.g. fertiliser seed, & water



Market access and biosecurity \$1B

e.g. pest & disease control

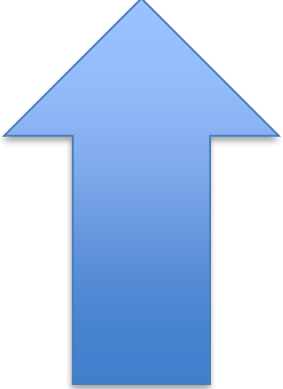
^{iv} including forestry, and fisheries and aquaculture

^a Gross Value of Production (GVP) measures the actual production output of an establishment or sector.

^b Including oilseeds and pulses.

^c Leafy greens, brassicas, and carrots only.

Sector	GVP Increase (%)
Rice	30
Grains ^b	51
Cotton	28
Sugar	23
Horticulture ^c	40
Beef	16
Sheep meat	17
Wool	18
Pork	5
Dairy	15
Eggs	25
Chicken meat	24
Wine	12
Forest and wood products	37
Livestock exports	4
Red meat processing	14
Fisheries and aquaculture	44
Total	25

Cotton  28% GVP
\$394 million

So what?

What does it mean to me?

- Everyone is looking at the opportunity of digital agriculture
- Likely to be interacting with different players
- Partnership models are going to change – CRDC proactive
- Understand and embrace – but know how to capture the value (for everyone)

ACCELERATING PRECISION AGRICULTURE TO DECISION AGRICULTURE

Enabling digital agriculture in Australia

This Project is supported by funding from the Rural R&D for Profit Program



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