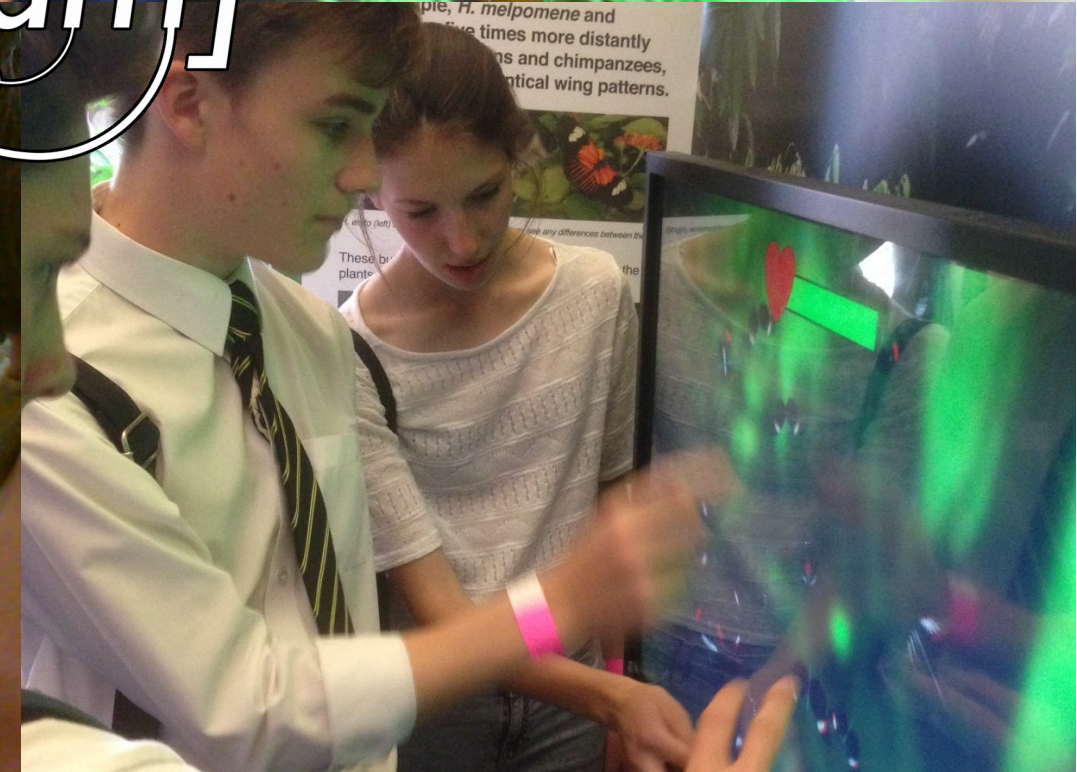


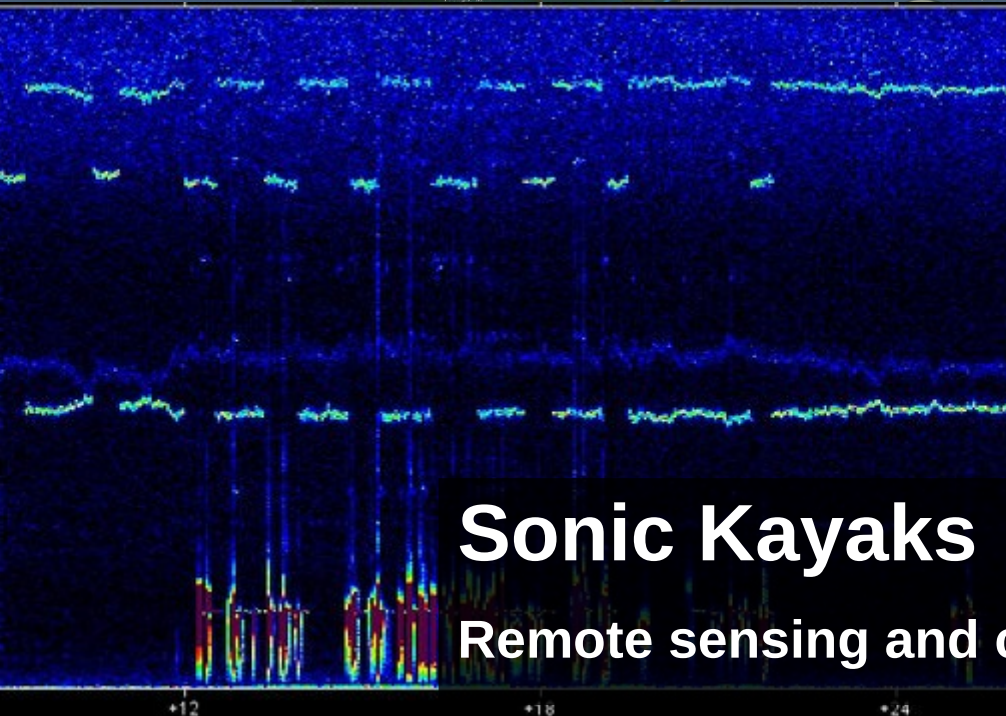


- Introduction
- Data mapping experiment
- Preview of 3.0 version
- Open discussion
- Lunch



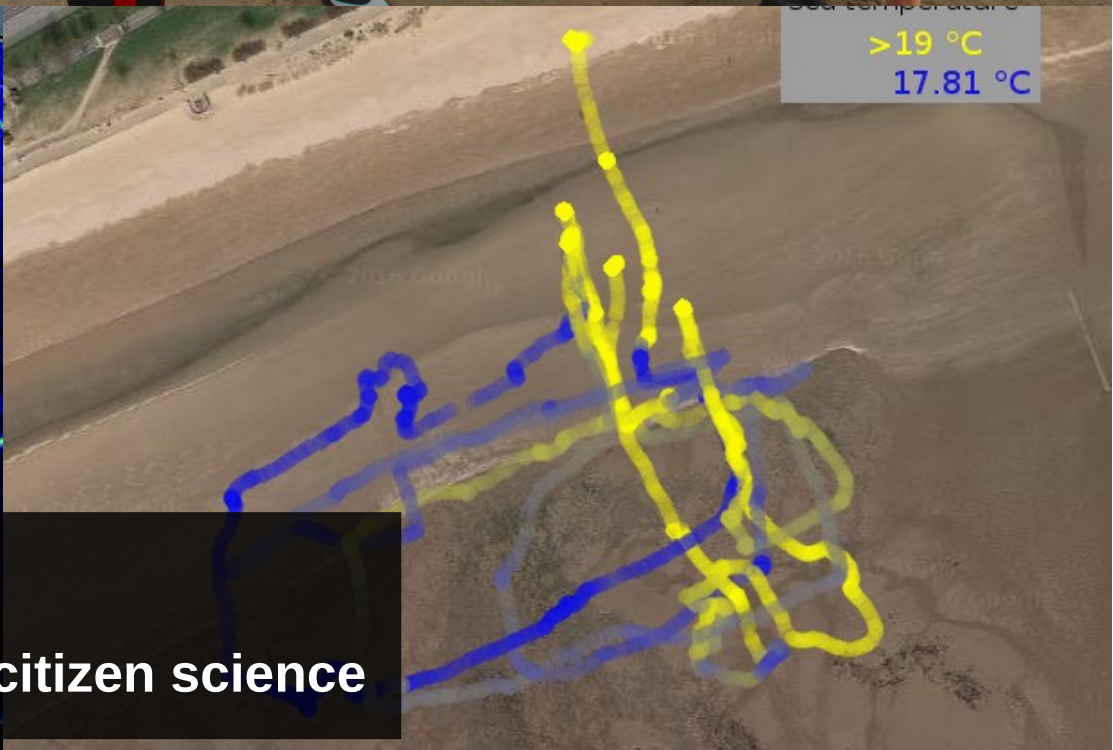
[foam]

BRITISH
SCIENCE
ASSOCIATION



Sonic Kayaks

Remote sensing and citizen science



Do you need help
finding scientific
evidence?

ACCESS
{ LAB

Is plastic pollution
really a problem?

Do fishing
quotas work?

My house is low
down, should I be
worried about sea
level rise?

What's the
evidence for how to
protect cattle from
tuberculosis?

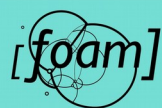
Where can I find
information on the
impact of offshore
renewables?

**Free one-day event for anyone in the
Parliamentary, Council and Policy sectors.**

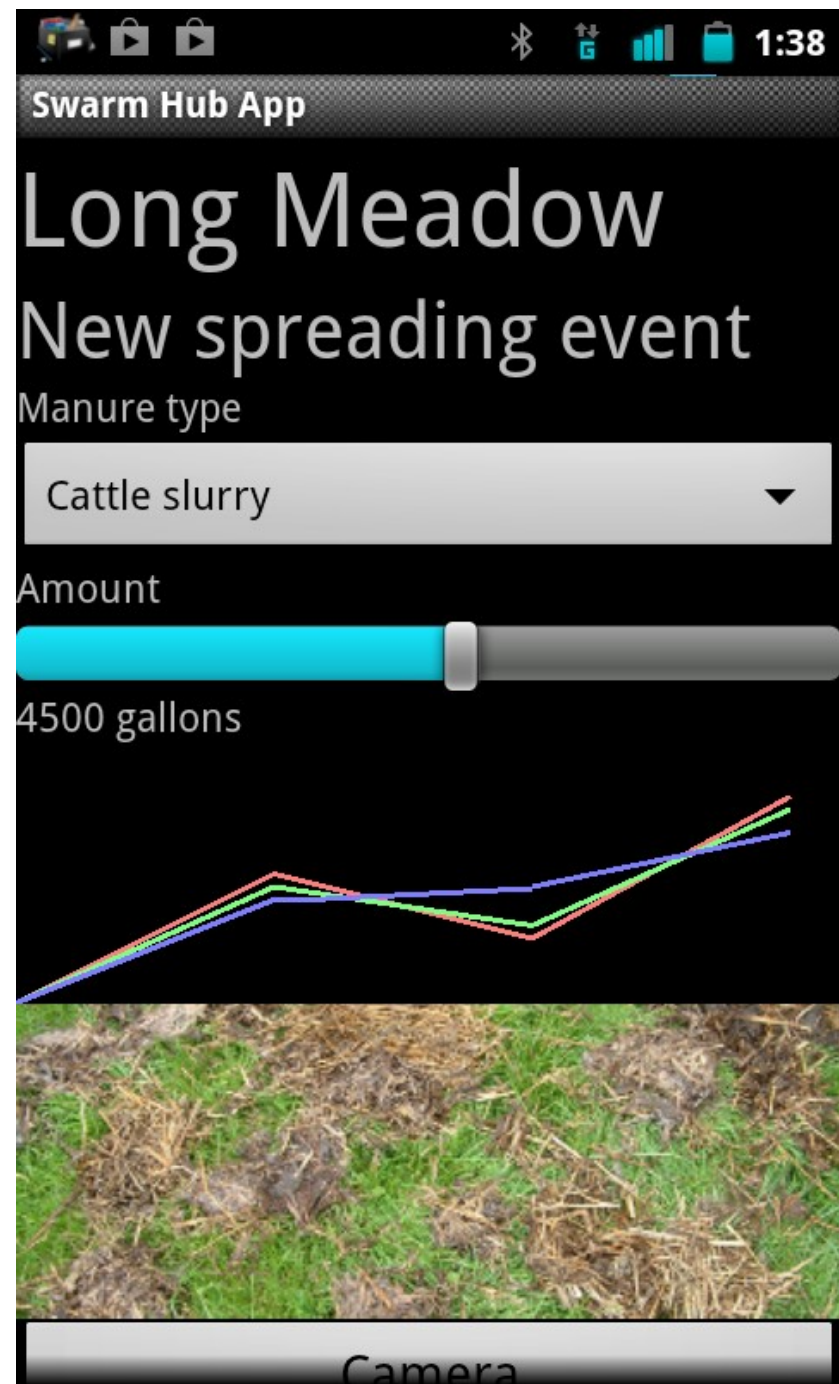
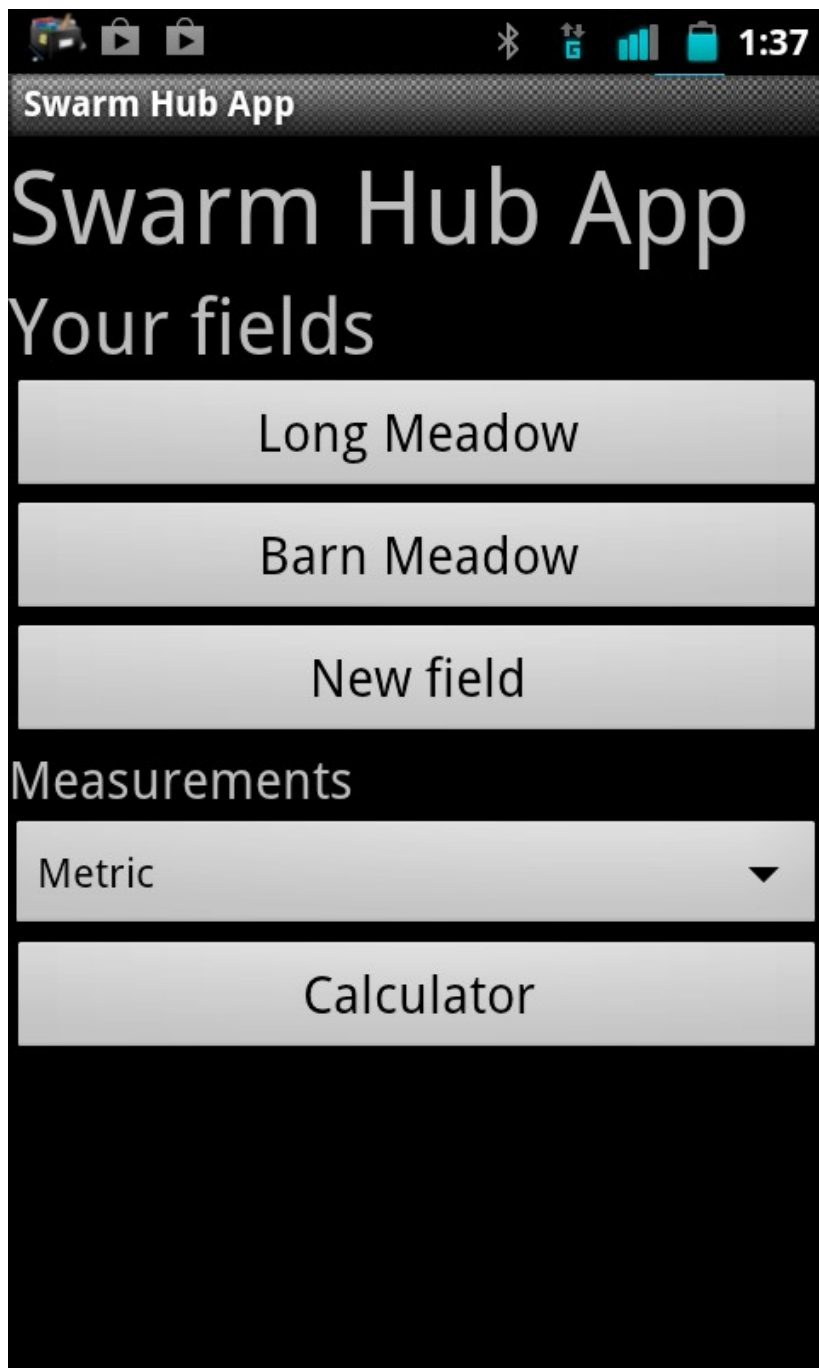
9 November 2018, Ocean Studios, Plymouth.

- Look at where scientific research is published and how to access it when you're not part of an academic institution.
- Learn the basics of fact-checking media stories about science.
- Co-research any question or topic of your choice one-to-one with a researcher.

For more info, visit: www.accesslab.org
Email accesslab@fo.am to secure a place.







Farm Crap App – first ever test version in 2013

Farm Crap App

Crap Calculator

Manure type

Pig Slurry

Soil type: Sandy/Shallow

Crop type: Normal

Season: Autumn

Quality: 2% DM


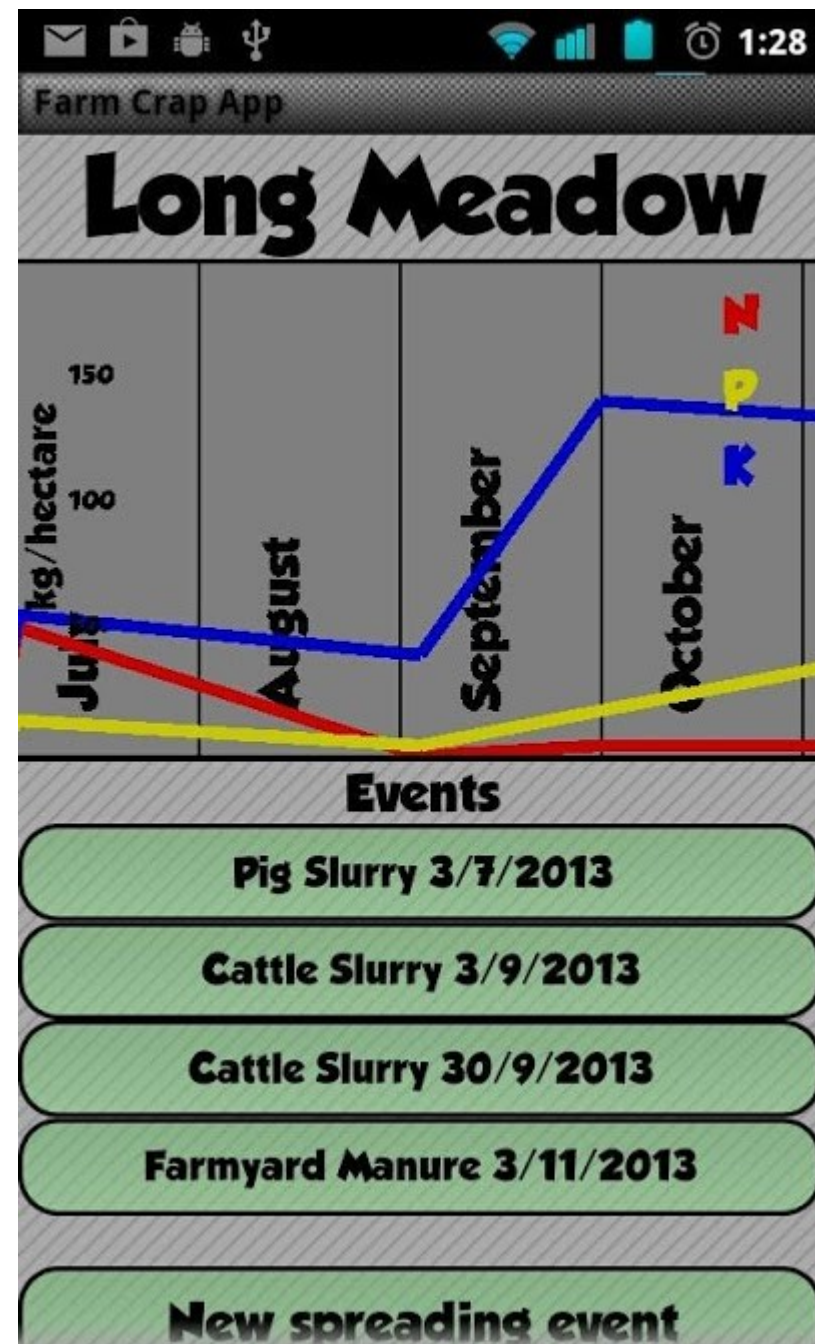
Amount

36 m³/ha

N/ha: 10.8

P/ha: 18

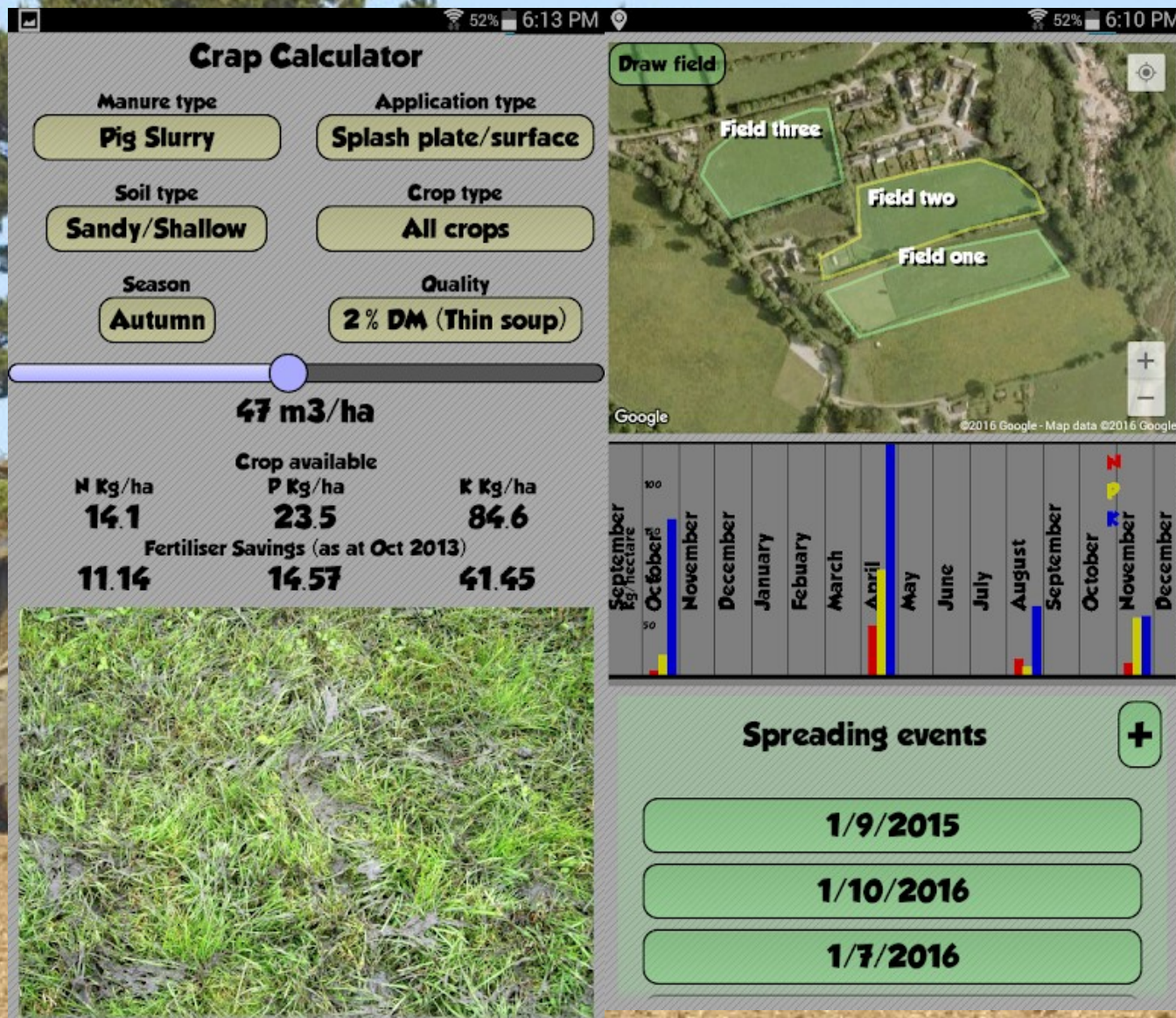
K/ha: 64.8

Farm Crap App V1.0 – released August 2014

'Farm Crap App' wins the Soil Association Innovation Award





Farm Crap App 'Pro' V2.0 – released May 2017

Nutrient Management Guide (RB209)

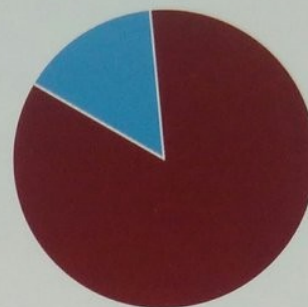
Updated May 2017

AHDB
AGRICULTURE & HORTICULTURE
DEVELOPMENT BOARD



Biosolid digested cake

- Organic-N
- Ammonium-N



The Farm Crap App is a free app that enables you to visually assess manures and slurry applications (rates) and calculate what is being provided in terms of total and crop available nutrients. You can select different seasons, types of manure(s) and crops growing to see what the manure will provide in terms of fertiliser value. The app is available on Apple and Android devices, through the iTunes or Google Play stores.

MANNER -NPK

MANNER-NPK is a free practical software tool that provides farmers and advisers with a quick estimate of crop available nitrogen, phosphate and potassium. MANNER-NPK is

British Beet
BBRO
Research Organisation

FACTS



Farm Crap App Version 3.0

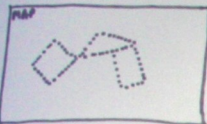


- Add the majority of RB209 information (finally!)
- Add networking features
 - Multiple farms
 - Share with other people
 - Allow multiple people to combine data
 - and maybe other things....

Networking features

- How do you use the Farm Crap App?
- What things can it do to make your life easier?
- What are your issues regarding sharing of data?
 - What are the bottlenecks?
 - How valuable is it?
 - What are the liabilities?

FARM



YOUR FIELDS =

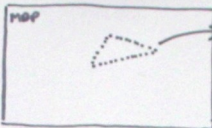
MEASUREMENT UNITS = kg/ha

- units/acre

RAINFALL = high
- medium
- low

HOW MUCH DO YOU PAY FOR FERTILISER? = N
- P
- K

MAKE NEW FIELD



FIELD SIZE
FIELD NAME

SOIL TYPE

- SANDY / SHALLOW
- PART
- ORGANIC
- MEDIUM / SHALLOW
- DEEP CLAY
- DEEP SILT

SOIL TEST

- P (0.1, 2, 3)
- K (0.1, 2, 2+, 3 or more)

DO YOU REGULARLY ADD ORGANIC MATTER?

- Yes (add 1 to NPK)
- No

PREVIOUS CROP

- CEREALS
- OILSEED RAPE
- PASTURES
- SUGAR BEET
- PEAS
- BEANS
- LOW N veg
- MEDIUM N veg
- FORAGE CROPS (CUT)
- UNCROPPED LAND
- GRASS - LOW N / 1 or more cuts
- 1-2 yr HIGH N GRAZED /
- 3-5 yr LOW N GRAZED /
- 3-5 yr HIGH N CUT
- 3-5 yr HIGH N GRAZED

HAVE YOU GROWN GRASS IN LAST 3 YEARS?

- Yes
- No

CROP GROWING

- WINTER WHEAT, STRAW REMOVED
- WINTER WHEAT, STRAW INCORPORATED
- SPRING BARLEY, STRAW REMOVED
- SPRING BARLEY, STRAW INCORPORATED
- GRASS (YIELD 6-8t, COW 1.5, STOCK MED)

NEW SPREADING EVENT

DATE

MANURE TYPE

- Farmyard manure (p62-63)

- Pig slurry (p63-64)

- Cattle slurry (p65-66)

- Poultry litter

- Compost (p70)

- Add custom →

QUALITY

- Mixed species
- Cattle
- Pig
- Sheep
- Horse
- Duck
- 2%
- 4%
- 6%
- Separated liquid
- Separated solid

APPLICATION

- Straight away to surface
- Straight away and ploughed
- Stored and spread on surface
- Stored and ploughed in
- Splash plate on surface
- Splash plate and incorporated
- Trailing shoe / dribble bar / band spreader
- Shallow injected

"

- Layer manure
- Brailer litter

- Green compost
- Green and food waste

ENTER NAME + NPK

APPLICATION RATE

PHOTO

| | N | P | K |
|-------------------------|---|---|---|
| TOTAL CROP AVAILABLE | | | |
| SAVINGS | | | |
| CROP REQUIREMENT | | | |
| FERTILISER STILL NEEDED | | | |

NPK Crop Requirement - NPK Crop Available = Fertiliser still needed

Mapping experiment

- List all the organisations and people you share (or want to share) information with - one per post-it note



Android Beta: <https://play.google.com/apps/testing/foam.crapapppro>

Development issues: <https://github.com/fo-am/crapapppro/issues>

<https://fo.am/kernow>

dave@fo.am

amber@fo.am

aidan@fo.am



Crap Calculator

Manure type: **Cattle Slurry**

Application type: **Splash plate/surface**

Soil type: **Sandy/Shallow**

Crop type: **Winter wheat, straw removed**

Season: **Autumn**

Quality: **2% DM (Thin soup)**


32 m3/ha

Crop available nutrients (Total in manure)

| N Kg/ha | P ₂ O ₅ Kg/ha | K ₂ O Kg/ha |
|-----------------|-------------------------------------|------------------------|
| 2.4 (48) | 8 (16) | 49 (76.8) |
| £1.9 | £4.96 | £24.01 |

Fertiliser Savings

Done





Crap Calculator

Manure type

Cattle Slurry

Application type

Splash plate/surface

Soil type

Sandy/Shallow

Crop type

Winter wheat, straw removed

Season

Autumn

Quality

2% DM (Thin soup)

52 m³/ha

Crop available nutrients (Total in manure)

N Kg/ha

3.9 (78)

P₂O₅ Kg/ha

13 (26)

K₂O Kg/ha

79.6 (124.8)

Fertiliser Savings

£3.08

£8.06

£39



Done



Crap Calculator

Manure type
Cattle Slurry

Application type
Splash plate/surface

Soil type
Sandy/Shallow

Crop type
Winter wheat, straw removed

Season
Autumn

Quality
2% DM (Thin soup)


82 m3/ha

Crop available nutrients (Total in manure)

| N Kg/ha | P ₂ O ₅ Kg/ha | K ₂ O Kg/ha |
|------------------|-------------------------------------|------------------------|
| 6.1 (123) | 20.5 (41) | 125.5 (196.8) |
| £4.82 | £12.71 | £61.5 |

Fertiliser Savings

Done





Calculator

Your fields



East field

Middle field

North field

South field



Save boundary Delete boundary

Google Imagery ©2017 Getmapping plc, DigitalGlobe, Infoterra Ltd & Bluesky ©2017 Google

Field name Field size (hectares)

East field 2.5

Spreading events +

4/7/2017

27/4/2017

2/6/2017

Soil details



Save boundary Delete boundary

Google Imagery ©2017 Getmapping plc, DigitalGlobe, Infoterra Ltd & Bluesky ©2017 Google

Field name Field size (hectares)

East field 2.5

Spreading events +

4/7/2017

27/4/2017

2/6/2017

Soil details



Save boundary Delete boundary

Google Imagery ©2017 Getmapping plc, DigitalGlobe, Infoterra Ltd & Bluesky ©2017 Google

Field name Field size (hectares)

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27/4/2017

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Field name Field size (hectares)

East field 2.5

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4/7/2017

27/4/2017

2/6/2017

Soil details



Save boundary Delete boundary

Google Imagery ©2017 Getmapping plc, DigitalGlobe, Infoterra Ltd & Bluesky ©2017 Google

Field name Field size (hectares)

East field 2.5

Spreading events +

4/7/2017

27/4/2017

2/6/2017

Soil details



Soil details

Soil type

Peat

Do you regularly add organic manures?

Yes

Results of soil tests (if available)

P

2

K

2+

Soil N supply

N Kg/ha

>240



Crop details

Previous crop type

Beans

Have you grown grass in the last 3 years (other than previous year)?

No

Crop type

Winter wheat, straw incorporated

Crop nutrient requirements

N Kg/ha

30

P₂O₅ Kg/ha

60

K₂O Kg/ha

20

Crop available nutrients added to



18% 9:56 AM

East field

Enter new crap spreading event


Manure type: **Farmyard Manure** Date: **2/6/2017**

Quality: **Cattle** Application type: **Straight to surface**

55 tons/ha

Crop available nutrients (Total in manure)

| N Kg/ha | P ₂ O ₅ Kg/ha | K ₂ O Kg/ha |
|----------------------------|-------------------------------------|------------------------|
| 18.4 (352) | 104.5 (176) | 465.3 (517) |
| Fertiliser Savings | | |
| £45.06 | £200.85 | £706.79 |
| Crop nutrient requirements | | |
| 160 | 120 | 105 |
| Nutrients still needed | | |
| 141.6 | 15.5 | -360.3 |



Save **Cancel**

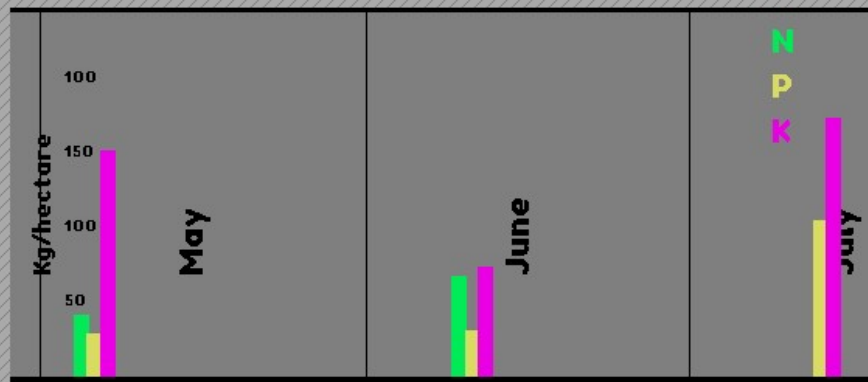


30

60

20

Crop available nutrients added to field



Delete

Back