

Addressing the skills gap: the SWARM project

Stephen Roderick

Rural Business School

Duchy College

Cornwall TR14 0AB

s.roderick@cornwall.ac.uk

South West Agricultural Resource Management (SWARM) Knowledge Hub

Aimed at knowledge transfer, skills acquisition and behavioural change with regard to management practices influencing and mitigating climate change, key related ecosystem services and associated business benefits.

- RDPE-funded
- Web resource www.swarmhub.co.uk
- Academic and industry partnerships
- Dissemination from sub-contracted projects
- Innovation
- Evidence base from RDPE advisory & grant schemes




An RDPE Initiative from the Rural Business School

[Home](#)
[About Us](#)
[SWARM Initiative](#)
[Hub Projects](#)
[Contact Us](#)



Sustainable farming for profit




An RDPE Initiative from the Rural Business School

[Home](#)
[About Us](#)
[SWARM Initiative](#)
[Hub Projects](#)
[Contact Us](#)



PPRE

Peninsula Partnership
for the
Rural Environment

- Soils
- Energy Efficiency
- Renewables
- Nutrients & Manures
- Water
- Trees and Wood
- Farmer Profiles
- Web Resources

LATEST NEWS

[New PAAG report results](#)
The recently updated PAAG report supports the need for regular soil analysis to maintain soil pH.

[more news >>](#)

E-NEWSLETTER

Sign up here for our e-newsletter

* Your Email Address:

* Enter the security code:

☐ img0

Subscribe

WELCOME TO THE SWARM HUB...

Sustainable agriculture means more profit to the farming community

The SWARM Hub provides farmers and growers with practical, up to date and unbiased information to help manage natural resources efficiently and make the right business decisions.

Explore the different resource areas listed to the left...

Improving soil fertility through soil management

A focus on different ways of improving soil structure on a Cornish farm.



Find out more about projects funded through the SWARM Initiative

[Soil for Profit](#)

[Resource Efficiency for Farmers](#)



WHAT DO YOU THINK?

Please provide some feedback to help improve this site

[text bigger](#) | [text smaller](#)



PPRE

Peninsula Partnership
for the
Rural Environment

- Soils
- Energy Efficiency
- Renewables
- Nutrients & Manures
- Water
- Trees and Wood
- Farmer Profiles
- Web Resources

LATEST NEWS

[New PAAG report results](#)
The recently updated PAAG report supports the need for regular soil analysis to maintain soil pH.

[more news >>](#)

E-NEWSLETTER

Sign up here for our e-newsletter

* Your Email Address:

* Enter the security code:

☐ img0

Subscribe

NUTRIENTS AND MANURES

Effective planning of manure and fertiliser applications allow farmers to minimise environmental risks and optimise productivity

Nutrient Management Planning

Fertiliser Use Efficiency

Manure Use Efficiency

Fertility Building

Slurry Storage

Nitrate Vulnerable Zones

NVZS - KEY DATES AND FIGURES

Record requirements

Dates you need to know

Organic manure N field limit

Livestock manure N farm limit

Storage and spreading

Closed periods for spreading

N Max limits

Developed by the Environment Agency in association with Creedy Associates, correct as of April 2013.

USEFUL TOOLS

NVZs

Catchment Sensitive Farming

Soils for Profit

Tried and Tested

RB209 - The Fertiliser Manual

PLANET

MANNER

Slurry Storage

Slurry Wizard

Water Framework Directive

An RDPE Initiative from the Rural Business School



Home About Us SWARM Initiative Hub Projects Contact Us



PPRE

Peninsula Partnership
for the
Rural Environment

Soils
Energy Efficiency
Renewables
Nutrients & Manures
Water
Trees and Wood
Farmer Profiles
Web Resources

LATEST NEWS

New PAAG report results
The recently updated PAAG report supports the need for regular soil analysis to maintain soil pH.

[more news >>](#)

E-NEWSLETTER

Sign up here for our e-newsletter

* Your Email Address:

* Enter the security code:

Subscribe

FERTILITY BUILDING



The use of clovers and other legumes as a source of Nitrogen (N) is an organic practice that is becoming an increasingly attractive proposition to all farmers due to globally rising costs of mineral N fertiliser and the negative environmental impacts of its production and use.



Interested in reading about how a grower on the Isles of Scilly builds fertility in his soil? Click [here](#).

Interested in different ways of establishing clover? Click [here](#) to visit the Nutrient Wise Demos page, and register your interest in attending one of their demonstration events.

Interested in looking at the different methods used to establish white clover in an existing grass sward and comparing the cost of each method? Click [here](#) to read the Nutrient Wise Demo Factsheet.

NVZS - KEY DATES AND FIGURES

Record requirements
Dates you need to know
Organic manure N field limit
Livestock manure N farm limit
Storage and spreading
Closed periods for spreading
N Max limits

Developed by the Environment
Agency in association with Creedy
Associates, correct as of April
2013.

USEFUL TOOLS

NVZs
Catchment Sensitive Farming
Soils for Profit
Tried and Tested
RB209 - The Fertiliser Manual
PLANET
MANNER
Slurry Storage
Slurry Wizard
Water Management Director

An RDPE Initiative from the Rural Business School



Home About Us SWARM Initiative Hub Projects Contact Us



PPRE

Peninsula Partnership
for the
Rural Environment

Soils
Energy Efficiency
Renewables
Nutrients & Manures
Water
Trees and Wood
Farmer Profiles
Web Resources

LATEST NEWS

New PAAG report results
The recently updated PAAG report supports the need for regular soil analysis to maintain soil pH.

[more news >>](#)

E-NEWSLETTER

Sign up here for our e-newsletter

* Your Email Address:

* Enter the security code:

☒ img0

Subscribe

NITROGEN FIXATION



Nitrogen (N) is a key nutrient in helping to achieve acceptable yields and crop quality. Through an uptake of mineral N in the soil and fixation of N_2 from the atmosphere, legumes can provide a source of 'free nitrogen'.

Nitrogen (N) fixation explained

Factors affecting N fixation

How can I minimise N losses?

How can I maximise N fixation?

How can I improve efficiency of N availability?

What else should I consider?

Management of cover crops - options and timings. To reduce N leaching risks, cover crops need to be established early in autumn to ensure good crop growth and hence N uptake. Establishment techniques should ensure that soil moisture is conserved and that there is a good seed / soil contact. Some cover crops do not release N quickly enough to be utilised by the following crop. If N is released too slowly and not fully used by the cash crop it can be leached in the following season.

Crop sequences - as in most organic rotations, more N is likely to be fixed where legumes follow crops that have previously depleted soil N levels.

Bi-cropping - the use of permanent beds of a legume grown alongside a cash crop has potential as an alternative technique to planning a legume into the rotation by itself. It also helps to reduce pest and disease severity.

Costs - the economic viability of conventional rotations tend to be reduced by the need to have crops in the rotation purely for fertility building. The use of marketable grain legumes in stockless rotation enables some income to be derived from the fertility builder. However the N fixed is likely to be less as some of the N will be used from the fertility builder. However the N fixed is likely to be less as some of the N will be used in the production of seed e.g. peas.

NVZS - KEY DATES AND FIGURES

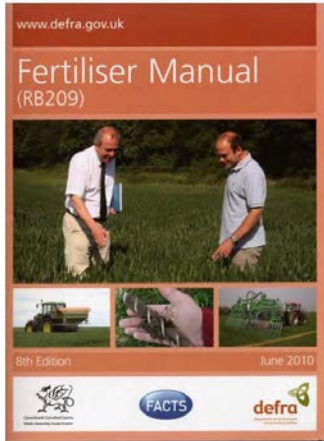
Record requirements
Dates you need to know
Organic manure N field limit
Livestock manure N farm limit
Storage and spreading
Closed periods for spreading
N Max limits

Developed by the Environment
Agency in association with Creedy
Associates, correct as of April
2013.

USEFUL TOOLS

NVZs
Catchment Sensitive Farming
Soils for Profit
Tried and Tested
RB209 - The Fertiliser Manual
PLANET
MANNER
Slurry Storage
Slurry Wizard
Water Management Director

Getting the message across



Cattle FYM applied at 25t/ha

FYM 25t/ha	Available N (kg/ha)				Available P and K (kg/ha)	
	Autumn applied Sandy / shallow	Medium / heavy	Winter applied Sandy / shallow	Spring All soils	Summer All soils	P K
Surface applied (i.e. not incorporated)	7.5	15	15	15 (€18.50)	15	47.5 (€42.75) 180 (€108)
Soil incorporated 24 hours after application	7.5	15	15	15 (€18.50)	N/A	47.5 (€42.75) 180 (€108)
FYM Old (and Fresh)	6	12	12	18 (€20.25)	N/A	47.5 (€42.75) 180 (€108)

Cattle FYM applied at 50 t/ha

FYM 50t/ha	Available N (kg/ha)				Available P and K (kg/ha)	
	Autumn applied Sandy / shallow	Medium / heavy	Winter applied Sandy / shallow	Spring All soils	Summer All soils	P K
Surface applied (i.e. not incorporated)	15	30	30	30 (€37.00)	30	95.0 (€85.50) 360 (€216)
Soil incorporated 24 hours after application	15	30	30	30 (€37.00)	N/A	95.0 (€85.50) 360 (€216)
FYM Old (and Fresh)	15	30	30	30 (€37.00)	N/A	95.0 (€85.50) 360 (€216)

How am I spreading it?

The quantity of nutrients available for crop production will depend on the method of application as well as the source of the manure, its dry matter, soil type and season of application. Click on the images below to get an indication of available nutrients for different application methods.

Surface Applied



Surface Applied & Soil Incorporated by 6 hours



Band Spread



Shallow Injected



THINK MANURES

Organic manures (slurry, FYM or poultry manure) are a valuable on-farm resource. They provide nutrients in the form of N, P and K that could reduce your bagged fertiliser requirements, reducing costs. They also contain organic matter that will improve the condition of your soil and help crop growth and performance.

The material on these pages comes from a variety of sources, including [Think Manures](#), [RB209](#), Nutrient Management guides, and current research on ammonia mitigation methods and alternative methods of spreading manures. This will allow you to take account of what nutrients are in your manures and plan applications accordingly to minimise losses to the environment and maximise economic value.



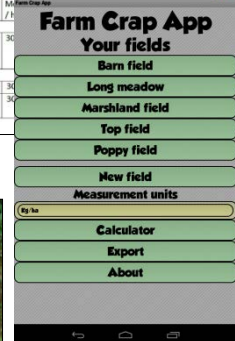
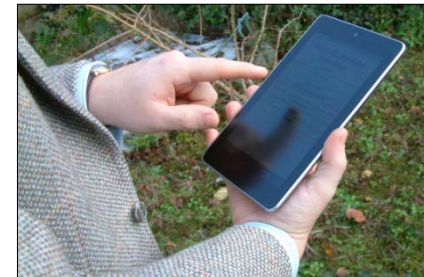
SPREADING RATE

How much am I spreading?

The following images show what different spreading rates of cattle and pig slurry and poultry litter look like on a grass crop. Click on the pictures to see what each spreading rate will supply to the crop in terms of N, P and K.

Images have been taken from [Think Manures](#) and values are from [RB209](#), [The Fertiliser Manual](#).

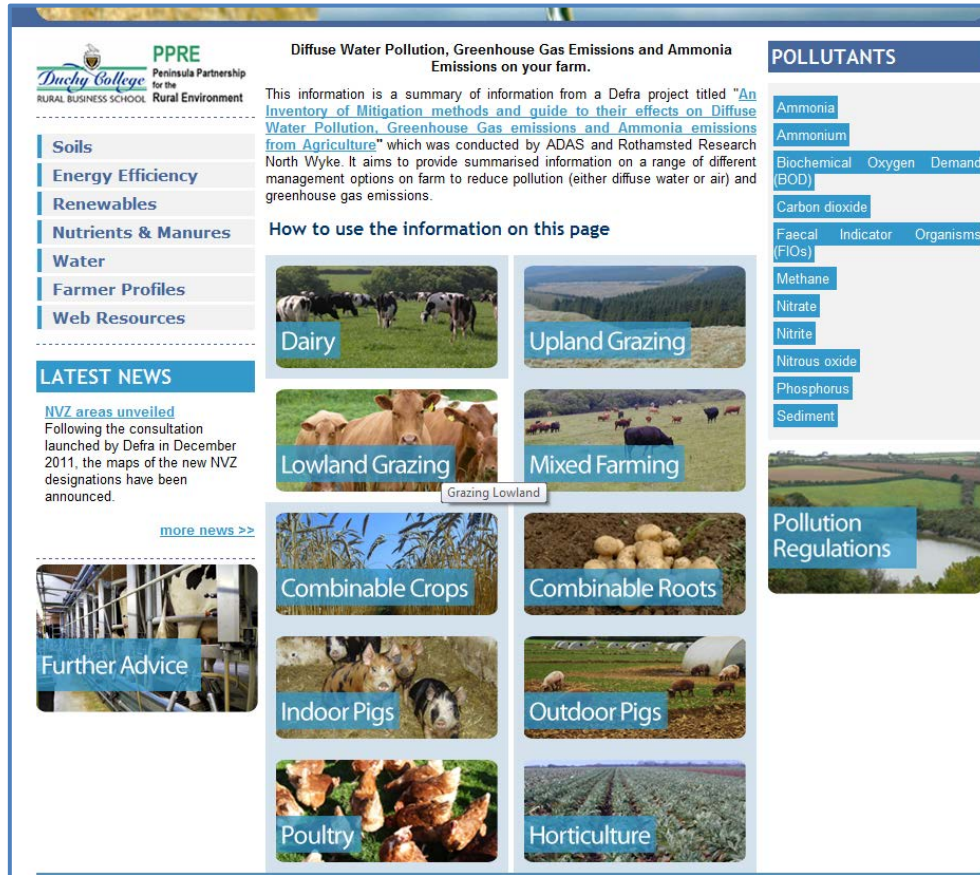
Don't work in kg/m²? [Click here](#) to access the tables with the calculations in units/acre rather than kg/m².



Helping to make decisions

e.g. an inventory to mitigate diffuse water mitigation, ghg and ammonia emissions

By enterprise type, time scale, options and expected returns



PPRE
Peninsula Partnership
for the Rural Environment

Diffuse Water Pollution, Greenhouse Gas Emissions and Ammonia Emissions on your farm.

This information is a summary of information from a Defra project titled "An Inventory of Mitigation methods and guide to their effects on Diffuse Water Pollution, Greenhouse Gas emissions and Ammonia emissions from Agriculture" which was conducted by ADAS and Rothamsted Research North Wyke. It aims to provide summarised information on a range of different management options on farm to reduce pollution (either diffuse water or air) and greenhouse gas emissions.

How to use the information on this page

POLLUTANTS

- Ammonia
- Ammonium
- Biochemical Oxygen Demand (BOD)
- Carbon dioxide
- Faecal Indicator Organisms (FIOs)
- Methane
- Nitrate
- Nitrite
- Nitrous oxide
- Phosphorus
- Sediment

Soils

Energy Efficiency

Renewables

Nutrients & Manures

Water

Farmer Profiles

Web Resources

LATEST NEWS

NVZ areas unveiled
Following the consultation launched by Defra in December 2011, the maps of the new NVZ designations have been announced.

[more news >>](#)

Further Advice

Dairy

Upland Grazing

Lowland Grazing

Mixed Farming

Combinable Crops

Combinable Roots

Indoor Pigs

Outdoor Pigs

Poultry

Horticulture

Pollution Regulations



PPRE
Peninsula Partnership
for the Rural Environment

DAIRY SYSTEMS

WHAT CAN I DO IN THE SHORT TERM?

SOIL MANAGEMENT

FERTILISER MANAGEMENT

LIVESTOCK MANAGEMENT

MANURE MANAGEMENT

Install covers on slurry stores

Allow cattle slurries to develop a natural crust

Adopt (batch) storage of solid manures

LATEST NEWS

NVZ areas unveiled
Following the consultation launched by Defra in December 2011, the maps of the new NVZ designations have been announced.

[more news >>](#)

Further Advice

POLLUTANTS

- Ammonia
- Ammonium
- Biochemical Oxygen Demand (BOD)
- Carbon dioxide
- Faecal Indicator Organisms (FIOs)
- Methane
- Nitrate
- Nitrite
- Nitrous oxide
- Phosphorus
- Sediment

WHAT IS THE EFFECT? Nitrate leaching losses would be reduced because of the lower readily available N content of the manure and associated Nitrous Oxide and Ammonia emissions would be reduced at land spreading. Ammonia emissions would be increased during storage but by a lower amount. The effects on nitrous oxide balances at the farm scale are uncertain.

WHAT IS THE INDICATIVE COST? £1/t of solid manure based on construction of concrete pad / leachate collection facilities and associated areas for vehicle movements. (2011)

[Read more. For more information on manure stores click here](#)

Site solid manure field heaps away from watercourses / field drains

Cover solid manure stores with sheeting

Manure spreader calibration

Do not apply manure to high risk areas

Do not spread slurry or poultry manure at

THE PASTURE MEDIA PROJECT



This project is looking at pasture farming and the resource management issues and multiple potential benefits of developing the management of grassland. It explores the use of media, specifically television and radio, in knowledge dissemination to the farming community. Click here to visit the [Pasture Promise TV website](#).

Introductory film



Watch the films



[Farming Unplugged](#)

Taking the chemicals out of farming. Meet the group of Cornish farmers who are working for a chemical-free future.



[Life from Earth](#)

Soil is the basis of our health, wealth and happiness. So it makes sense to take care of it.



[Do nothing Farming](#)

What happens when you work with nature instead of battling against it? Something amazing, that's what.



[The more we graze it](#)

With all the talk of mega dairies, one young farmer checks out the options and comes down firmly on the side of grassland and grazing.



[Farming in Balance](#)

A Wiltshire organic farmer finds traditional methods often solve many of today's most pressing problems.



[A question of justice](#)

A group of farmers near Bristol pioneer a new way of marketing good food to local people.

Understanding carbon

An RDPE Initiative from the Rural Business School

swarm hub.co.uk

Home About Us SWARM Initiative Hub Projects Contact Us

Sustainable farming for profit

PPRE Partnership for the Rural Environment

LOW CARBON FARMING PROJECT

Why does it matter?

Get Involved! with carbon footprinting on your farm

Carbon footprint calculators

CONTACT DETAILS

Sam Adams
Soil Association
South Plaza
Malborough Street
Bristol
BS1 3NX
t: 0117 314 5127
e: sadams@soilassociation.org

PODCAST

Project update - April 2012

Soil Association
Healthy soil. Healthy people. Healthy planet.

Campden BRI
Food and drink innovation

Soil Association producer support

Events Material

Considering Solar PV?

Introduction to Biochar

PAS 2050

Climate change and agriculture

Carbon footprinting on farms

Footprinting Toolkit

An introduction to low carbon farming

Grow your own energy

Objectives

- To create farmers practitioner learning networks which facilitate best practice in low carbon farming through peer to peer support
- To provide good quality information (including case studies), tools and signposting to support these networks
- To disseminate project outcomes particularly in the south west but also as widely as possible across the UK

Activities

Outcomes

Potential environmental and climate change impact

An RDPE Initiative from the Rural Business School

swarm hub.co.uk

Home About Us SWARM Initiative Hub Projects Contact Us

CARBON FOOTPRINT CALCULATORS

Carbon Footprinting Calculators

WHAT TO CONSIDER WHEN DECIDING WHICH CALCULATOR TOOL TO USE?

- It is recommended that the same calculator tool is used year on year in order to provide a more accurate monitoring system as calculators do not consistently measure tools, assumptions and conditions different
- The greater the energy consumption on a farm, the more difference there are between the tools because emission calculations are integrated
- Below are brief introductions to a selection of carbon calculators.

LATEST NEWS

New PAAG report results
The recently updated PAAG report supports the need for regular soil analysis to maintain soil pH.

CLIM Carbon Calculator

Farm Carbon Cutting Toolkit

Farm Carbon Calculator

PLAN v0 and PLAN v2

FCAT

Source: www.soilassociation.org by the Soil Association, and the website for each of the carbon calculators.

Soil Association
Healthy soil. Healthy people. Healthy planet.

Support us

Facing the future | Good food for all | Enabling change | What is organic?

Home - Innovative farming - Low Carbon Farming - FCAT - Farm Carbon Assessment Tool

FCAT - the Farm Carbon Assessment Tool

Use this tool to register in sign

Register or login

Answer questions and input relevant data (as honestly and accurately as you can)

Review your scores and identify areas for improvement

Receive targeted techniques to add improvement

Re-visit annually to monitor improvement towards best practice

Low Carbon Farming

Farm Carbon Assessment Tool - Introduction

FARM CARBON ASSESSMENT TOOL

swarm hub.co.uk

Partners:

Funders:

THE ASPDEN TRUST

The benefits of carbon footprinting

swarm farmer profile **swarm** farmer profile

As costs creep upwards, the pressure is mounting for farmers and growers to try and find ways to save money and run their farms more efficiently whilst cutting their greenhouse gas emissions. In order to make improvements on the farm you need to know what you are doing now. One way to do this is to complete a 'carbon assessment'.

The SWARM Hub team sat down with James Coumbe, Duchy College's Farms Director, Kelly Elvidge the Farm Secretary, and Sam Adams from the Soil Association to have a closer look at the farm's carbon footprint. The Low Carbon

In A-shaped field heaps as it don Home Farm. Nevertheless, to minimise of pollutant losses through surfi storing on a hard standing is con practice. Also manure heaps should

swarm hub.co.uk

British Grassland Society Nutrient Wise Demos



From the RDPE-funded Soils for Profit programme

- 1683 soil samples across 6 counties of SW
- Arable 354, grassland 1278
- Analysed for pH, SOM, P, K and Mg

	Grassland (%)	Arable (%)
pH	82.5	84.7
Samples below target index (%)		
SOM	1.6	15.5
P index	52.1	27.7
K index	38.5	21.2
Mg index	1.1	5.6



Reducing run-off, fuel usage and soil compaction swarm farmer profile

Julian and Judith Hurford run a 250 acre dairy farm with a small amount of arable and some luxury holiday cottages in the hilly region of East Devon just 3 miles outside of Honiton. The farm is set on slopes of around 3 - 8% and the soils are red flint clay loam over Merton Mudstone classed as Whimple Series. The farm, Farwood Barton, is in a priority CSF (Catchment Sensitive Farming) catchment.

A few years ago, Julian purchased a second-hand ultra-low rate Pulse Jet Irrigator designed by David Mitchell, a Norfolk Farmer, and manufactured by a British Company based in Northern Ireland (see below).



very low maintenance and the run off continues as a daisy.

"The irrigator is light and does not as a rule."

The dirty water on the farm is collected separately and spread on the fields using the ultra-low rate irrigator. It works by spreading a very small amount of dirty water over a large area allowing the soil to absorb this liquid with zero run off. The irrigator discharges 100 litres of dirty water (or slurry) in 1.5 seconds approximately 60 metres. As the water is propelled through the air, it breaks up into large droplets which are then dispersed over the wetted area. The maximum precipitation rate for dirty water to avoid producing run-off is 5mm per hour but the average precipitation rate for the Pulse Jet is 0.3 - 1.0 mm per hour.

Once a jet is fired the pressure in the pressure chamber drops, the jet moves around a couple of degrees, the pressure mounts again and the jet shoots out dirty water approximately one minute afterwards (depending on the settings).

The Pulse Jet Irrigator has been a great asset to Farwood Barton Farm. Julian explains "The low rate irrigator is expensive to buy but it is very reliable."

"This irrigator is a fantastic piece of machinery designed by a fellow farmer."

Click on the heading for more about the following:
• **Efficient Water Pollution**
• **Soil Erosion and Run-off**
• **Soil Structure and Compaction**
• **Fuel Efficiency**



An RDPE initiative from the Rural Business School

Growing and managing woodland for woodfuel swarm grower profile

Simon Trehanne from Pencoose (meaning 'end of the wood' in Cornish), owns an eight-acre smoothland near Truro, where 1.75 acres is covered by 'Wet Close Wood'. He describes the process of planting and management decisions involved. While not yet self-sufficient, the main aim of planting the wood was to provide fuel and support wildlife, whilst potentially growing some wood on for timber.



He selected native species to plant taking their inherent properties into account and encouraging diversity. Ash and alder are particularly good for coppicing for logs. "Cherry is fast growing and not subject to attack from grey squirrels, alder is a legume and has nitrogen (N) fixing properties (and ash is N hungry), whilst hazel can be particularly good for draught proofing" he explains.



Simon explains that the bulk of the planting of approximately 1,000 trees was carried out in February / March 2003, with a further 350 trees planted in March 2004. He used two-year-old transplants supplied by a nursery, grown in seedlings and then transplanted on to a bed in the second year to encourage root growth.

With the exception of the trees which were grown and some other plants which were underplant as an alternative to transplanting encourage root development. Most saplings were 40 - 60 cm high when planted.



An RDPE initiative from the Rural Business School

Improving soil structure and fertility with the help of S4P swarm farmer profile

The SWARM Hub accompanied S4P for Profit (S4P) on a follow-up visit to a farmer who participated in the SWARM project and found out how he has benefited from the support provided. Three years on from an initial S4P visit, Mark Williams from Pencoose Farm at St Agnes, Cornwall, describes how they have been improving soil fertility and structure on the farm through focussing on removing compaction to increase soil aeration.



Mark explains that the mixed farm, which he runs with his brother Andrew, includes vegetable and arable production as well as a pedigree South Devon suckler herd.

With the exception of one block of arable, the farm does not currently fall into a **strategic** holding. It is relatively flat and away from watercourses. The main soil type on the farm is described as a **penhryn** type, a medium loam over slate which drains well. Characteristic of soils on the edge of granite when the soil structure is not damaged by decompaction in Cornwall, the soil on this farm is

also gritty, containing lots of small granite stones and can be shallow in places. The farm was organic from 2001 for 6 years with cattle, pigs and organic cauliflower. However, Mark and Andrew found that the market could not cover the costs of the pig. "The costs of doing it outweighed the benefits so, although we have retained the organic principle, unfortunately we had to stop being organic last year" says Mark. "The cost of pig was around £200 to £250 a tonne but the price of pig products didn't go up at all."



An RDPE initiative from the Rural Business School

Solar PV on the cow shed swarm farmer profile

Paul George is a Cornish dairy farmer who keeps 450 cattle on Nanneworth farm, near Treruleton. In partnership with an independent private investor Paul has recently had solar panels installed on the roof of his cow shed and looks forward to seeing the big reductions in his energy bills from now on.



The footprint of the cow shed and milking parlour on Nanneworth farm is approximately 2300m² and roughly half of the roof has been covered by solar photovoltaic (PV) panels except for the light output and is expected to generate 12kW peak output and is expected to generate 10000kWh per year. The solar panels are powered by solar panels and not by a grid connection. Paul explains that "Having solar panels on the roof is utilizing a wasted space, it's a great idea."



The investor, working with Tim Dart (Farm and Renewable Energy Advisor) found a private investor who has taken a lot of the hassle out of the whole process and essentially rents the roof space. Solar panels are considered to be a low risk investment but for Paul they are particularly low because the private investor has taken on the minimal risk and responsibility including the leasing and maintenance of the panels.



The panels were supplied by Bright Sparks Solar and installed by local firm Solarworks Ltd. and the investors (pictured to the right) were supplied and installed by ELTEK renewables.



An RDPE initiative from the Rural Business School

49 farmer case studies:

- Innovation
- Practical hints
- Cost relationships

What do you think?

3. What did you like about the site?

Responses (12) Text Analysis My Category

Showing 12 text responses

Design, and simplicity but very informative
7/1/2013 11:33 [View Responses](#)

information it provided
21/11/2012 8:43 [View Responses](#)

I found it easy to use
20/10/2012 9:25 [View Responses](#)

Easy navigation
16/10/2012 14:34 [View Responses](#)

fast, catchy, readable
27/9/2012 17:28 [View Responses](#)

Front page pictures giving quick links to sections
24/9/2012 10:30 [View Responses](#)

Clear links
10/9/2012 15:51 [View Responses](#)

huge information available
8/3/2012 19:33 [View Responses](#)

Packed with information
21/2/2012 22:25 [View Responses](#)

I like the Latest News, the Web Links and the Farmers Profiles, but it is annoying that they open in the same window. I particularly like that the latest news is more wide reaching than the scope of the project as this helps put the project in context, which I feel the audience will appreciate as well.
23/1/2012 11:33 [View Responses](#)

SWARM Knowledge Hub feedback

Your feedback is important to us. We would like to know how we can improve.

1. How easy did you find the site to use and navigate?

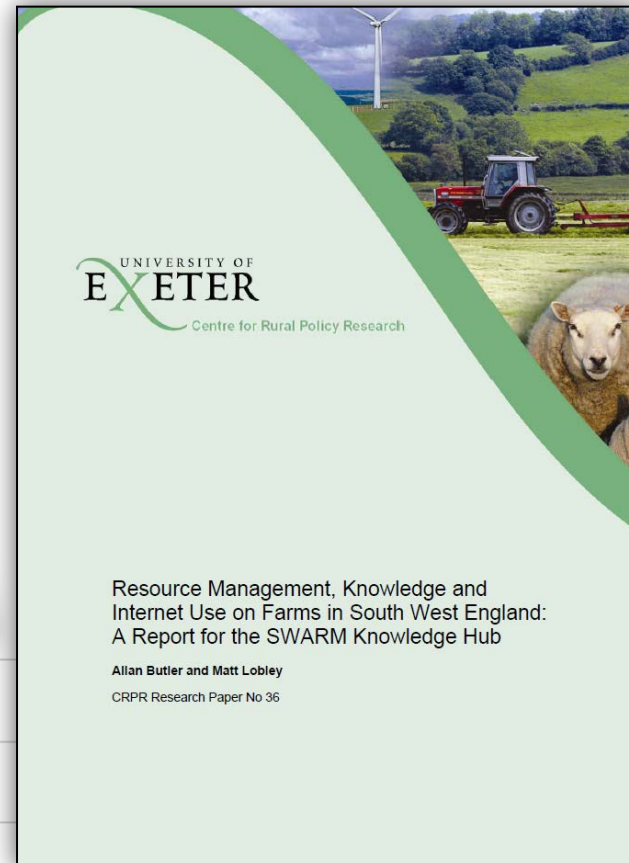
☐ Not easy at all
☐ Reasonably easy
☐ Easy
☐ Very easy

2. Who do you think the site is aimed at?

3. What did you like about the site?

4. What information did you find most relevant to your business?

5. What did you not like about the site?



Issues and considerations

Who's the audience? Farmers? Advisers?

What knowledge do farmers want, and in what format?

Not just why but how!

Drip feeding the message

Use of computers and smart phones

Getting across difficult and conflicting messages

What drives behavioural change? Economics?

Focus on the win-wins?

Measuring change – attitudes/approaches?