



# FACTS

## Setting the standards in crop nutrition

– sound, up-to-date advice

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## FACTS

### The challenges of crop nutrition

Crop nutrients are a vital resource to feed a growing population with an adequate quantity and quality of food and livestock feed. Nutrients can be supplied from organic manures, or other suitable recycled materials or as manufactured fertilisers.

However, any nutrient source must be applied accurately in the right amount for optimum production. At the same time the environment must be protected from excess supplies and the stringent regulations that apply to some forms of plant nutrient must be met.

Britain's farmers face a range of challenges including the Water Framework Directive, Nitrate Vulnerable Zones and increasing pressure to reduce greenhouse gas emissions. Little wonder that farmers are turning increasingly to agronomists and advisers for the latest knowledge to help them optimise production, meet quality specifications and impact less on their environment.



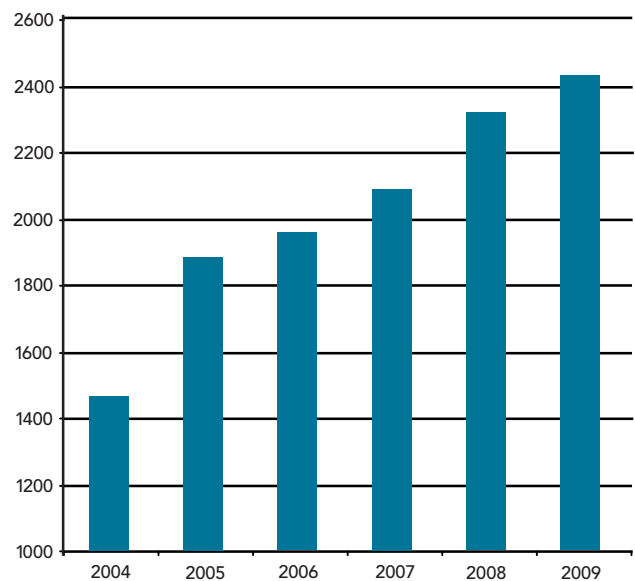
### Setting professional standards in crop nutrition

Established in 1993 the FACTS scheme is the body responsible for both setting and maintaining standards of advice given by individuals on farm. Over time, the scheme has gained credibility within the industry as well as with other bodies such as farm assurance schemes, government regulators and environmental bodies.

Although a voluntary scheme, the growth of FACTS membership reflects how the agricultural industry recognises the importance and benefit of qualified advice to promote farming systems that optimise crop nutrition and protect the quality of soil, water, air and farm biodiversity.

Today, more than 2,000 FACTS Qualified Advisers (FQAs) form a strong network across the UK, reflecting the industry's commitment to continually improving nutrient resource management on farm.

FACTS membership numbers



## FACTS

offers high standards of crop and grassland nutrition advice delivered by qualified people

FACTS Qualified Advice is based on:

- the latest sound science
- the right tools and technology for every farming situation
- giving farmers confidence to realise their production potential, profits and to impact less on the environment

### Well prepared for Environment Agency Audit

Our FACTS Qualified Adviser Ian Perry has guided our fertiliser use for many years. This proved invaluable when we were selected for an Environment Agency audit recently, says Norfolk farmer Barry Osborn.



Barry Osborn from Wessenham St Peter, with FQA Ian Perry

The environment officer examined our nutrient management plan, manure management plan and NVZ compliance report, which Ian prepares each year on our behalf, and found everything in order.

One nutrient application question arose, but after discussion between the officer, myself and Ian, his justification was accepted.

The successful resolution of our audit, to the satisfaction of both the Environment Agency and myself, proves the value of Ian's expertise to our business. I would recommend using a FACTS Qualified Adviser to all farmers.

**Barry Osborn.**

Silbury Developments Ltd.  
Wessenham St Peter, Norfolk



FQA Mark Tucker

### FQA 'know how' improves nitrogen management

Knowing your way round the fertiliser industry's standard crop nutrition 'bible' *The Fertiliser Manual* (RB209) is key to fine tuning nitrogen management strategies. A FQA has the knowledge to help translate available farm data into field specific recommendations. In 2009, a group of agronomists in the south west analysed grain sample data for farmers, and reviewed them against total fertiliser applications. Grain nitrogen and sulphur levels were measured to enable advice to be given. FQA Mark Tucker was called on to help interpret the relationship between grain sample data and N requirements.

*The Fertiliser Manual* gives the target % grain nitrogen for a winter wheat crop then uses tables to arrive at amounts of additional N required. The south west study revealed that 10% of samples indicated over fertilisation, while 90% indicated under fertilisation. According to the calculation from the grain N results around 90kg N/ha extra was required to satisfy crop N demand.

The data also showed that 60% of samples were expressing sulphur deficiency. This information enables agronomists to make further adjustments to crop nutrition so improving overall nitrogen use efficiency.



## Improvements and savings in grassland management

**Clive and Andrew Gurney**  
**Abbey Court Farm, Wigmore, Herefordshire**

Some 12 years ago Clive Gurney and his family moved from Austerson, Cheshire to a larger mixed farm of 400 acres at Wigmore, Herefordshire. The early years at Wigmore were spent improving crops, buildings and the livestock breeding profile. In the past four years Clive and Andrew decided to take a fresh look at forage production to ensure that the best quantity and quality can be achieved cost effectively.

### Balancing economic output and wildlife needs

The farm is in the River Teme catchment area, where diffuse nutrient loss is a recognised concern, so all soil nutrient decisions must conform to the expected standards. While not in an NVZ area, the same principles are adopted together with other measures that ensure environmental considerations are paramount in balancing economic production with local habitat protection and wildlife needs.

Annual soil testing monitors phosphate (P) to achieve index 2 and ensure that potash (K) levels around 2- are maintained.

Four years ago Clive and Andrew, in conjunction with various companies helped devise the Grassright Group to promote improved nutrient efficiencies. The group runs joint exercises in grassland management evaluation on selected farms discussing all aspects of grass growing, setting targets and evaluating current regimes.

Clive and Andrew decided to increase dry matter production in the grass crop. New seeds were sown and drainage issues

rectified. Both soils and slurry were tested. This integrated approach proved very worthwhile with grass yields rising over recent years equivalent to £405/ha.

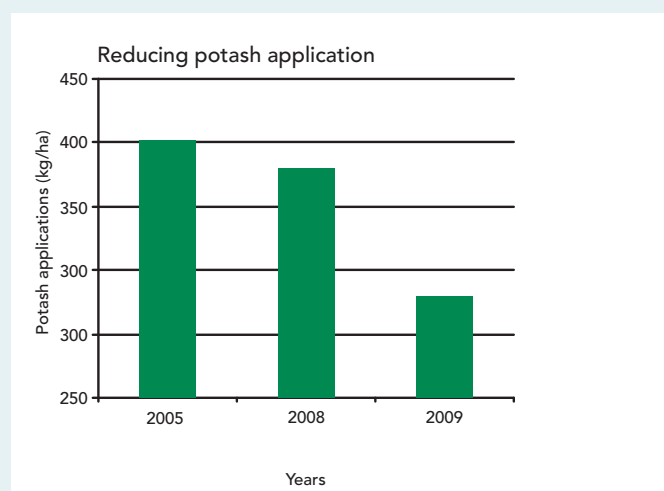
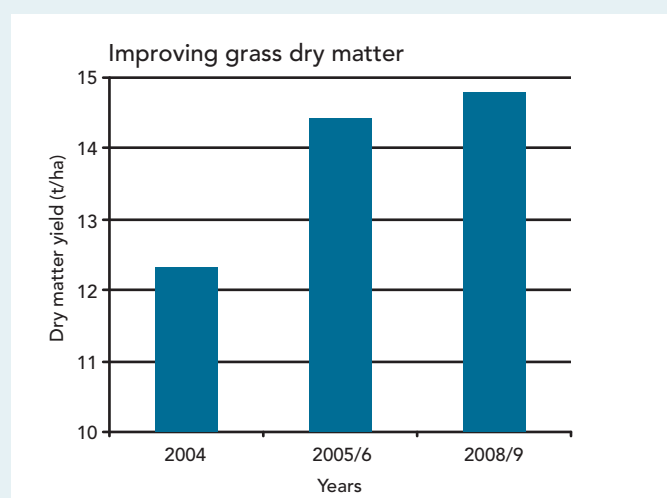
Adverse milk pricing policies were the main drivers to optimise the grass as well as maize and wholecrop silage.

Grass silage quality is targeted at 16% protein and 11.5 ME. The first silage cut is normally taken in early May. Nitrogen applications are finely balanced, as cutting date is delayed and quality lost if too much N is applied. The same attention to detail applies to maize and wholecrop.

### Silage fertiliser progress

Phosphate is finely balanced and was low on some fields so P is still applied for first cut, where necessary.

From both an economic and herd health point of view potash balance is vital. Nutrient plans include a nutrient balance that highlights surplus or deficit on each field. By diverting slurry from high K index fields, a valuable resource is now applied to low K index fields for most benefit. Savings have been made over the past three years as follows.



Therefore, engaging with expert FACTS advice Clive and Andrew identified where improvements and cost savings could be made in their grassland management.

## Manure and fertiliser use optimised

In North Devon, Andrew Lewis runs 350 dairy cows on 260ha of clay loam at Hartland View Farm



Andrew Lewis with FQA John Ollier (right)

Andrew, a member of the North Devon Grassland Society and winner of a silage award in 2008, has been working with FQA John Ollier to refine his crop nutrition and ensure he keeps to the NVZ rules that apply to his land.

Nutrient management for the farm aims to utilise all the nutrients in home-generated manures and combine them within a fertiliser plan to optimise nutrient use and maximise production.

### Component description

Total herd size	350
Cows in milk	326
Herd average milk yield	8,900 litres
Total milk production	3m litres

### Cropping

Silage production	5,000 tonnes
Fodder beet	550 tonnes
Maize	1500 tonnes
Lucerne (new crop '08)	275ha
Grazing area (8 hr/day)	60ha

	Bought	Used
Total fertiliser 07/08	175 tonnes	120 tonnes
Total fertiliser 08/09	75 tonnes	130 tonnes

### Manure production

NVZ farm limit	44,176kg
Livestock generated manure	43,379kg

### Production costs

#### Fertiliser costs – ppl

Year	2006	2007	2008	2009
Fert cost (£)	18261	20014	33731	24675
ppl	1.05	1.0	1.38	0.93

#### Milk production

Year	2006	2007	2008	2009	06-09 increase
Total (M litres)	1.743	2.05	2.43	2.67	35%
Average/Cow (litres)	7379	7586	8504	8814	16.3%

The result is a significant reduction in fertiliser use on grassland and fodder beet. All the P and K for grassland is delivered from manures, so only straight N is applied. By rationalising his fertiliser purchases, Andrew has managed to increase milking performance by over a third in the past three years.

*"The Environment Agency has a good relationship with the local FACTS Qualified Advisers (FQA's). Here in the south west, we've found that the advisers give really comprehensive advice about crop nutrition and fertiliser use. This helps farmers to make sure their crops benefit fully from the nutrients they put on their land, preventing them from entering our watercourses and damaging the environment. We have frequent contact with local FQA John Ollier who provides local advice to the region's farmers. John is one of over 100 FQAs in the south west who use a nutrient planning programme to help their customers to manage fertilisers and manures well."*

Andy Leyman, Environment Officer, Environment Agency, South West Region.

## Cost savings with optimum P and K

Richard Corlett has worked with his FQA for ten years to get the very best from his grass and crops

With regular soil testing, optimum levels of phosphate (P) and potash (K) are now achieved on the 140ha farm near Lathom, Lancashire. In fact, thanks to forward planning, it is now possible to match P and K off-take with input without compromising soil indices.

The emphasis for Richard and his wife Dawn is home-grown forage to support 190 milkers yielding around 9000 litres.

NVZ restrictions have focussed attention on spreading slurry and manure across the farm, rather than just on maize which used to be common on north west dairy farms. Richard very quickly appreciated the value of slurry and has this analysed regularly.

Last year's soil analysis showed just four fields needed more K. This highlights the benefit of regular sampling analysis.

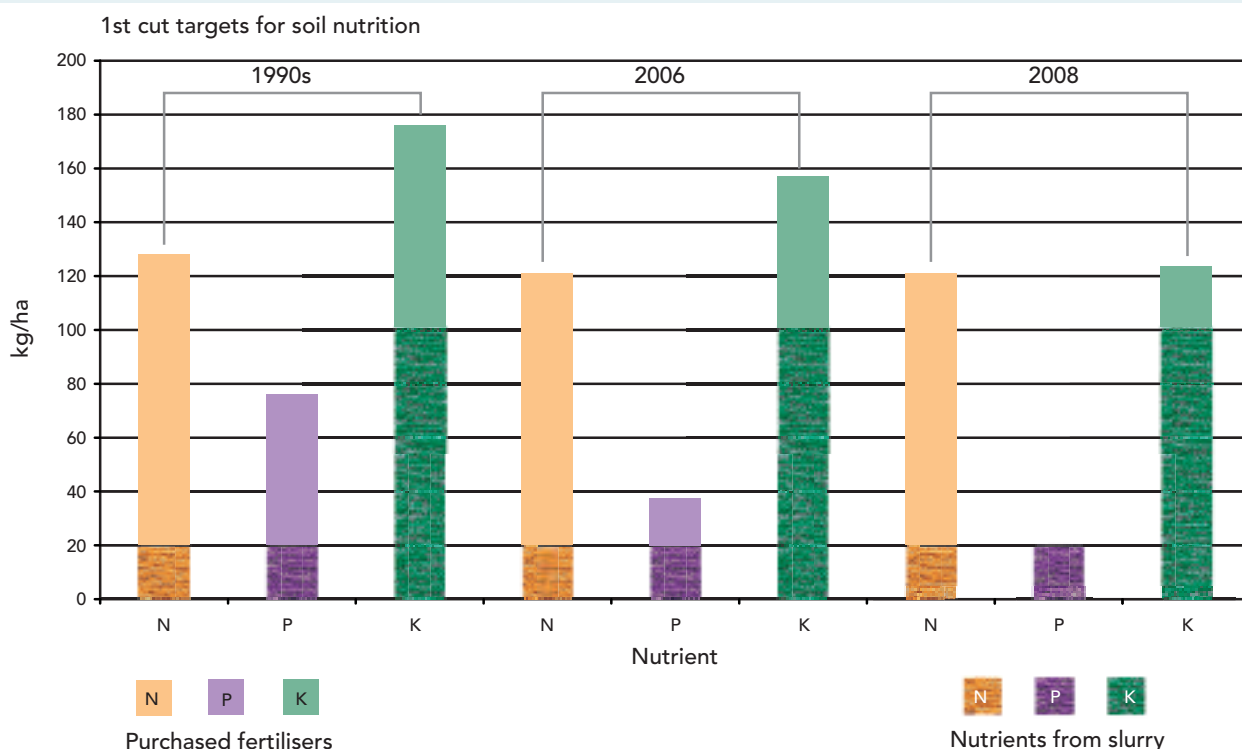
### Silage fertiliser progress

In the 90s Richard always ensured a high soil P and K status to support home-grown forage. Today, input matches the off-take to support good economics while maintaining soils at target P and K indices.

### Savings on grazing

Compared to previous grazing systems there is a saving of £15.90/ha. This is valuable and phosphate in 'bought in' feed seems to be sufficient to maintain the status. Although, this is constantly monitored.

This example is typical of how savings can be made by working with an adviser and looking in detail at all aspects of nutrient brought onto the farm from outside sources.



The latest P and K application rates for silage production are now ideal to complement slurry application and show:

- Savings on phosphate of £29.50/ha
- Savings on potash of £25.66/ha
- Total savings on phosphate and potash of £55.16/ha on the mid 1990's position.

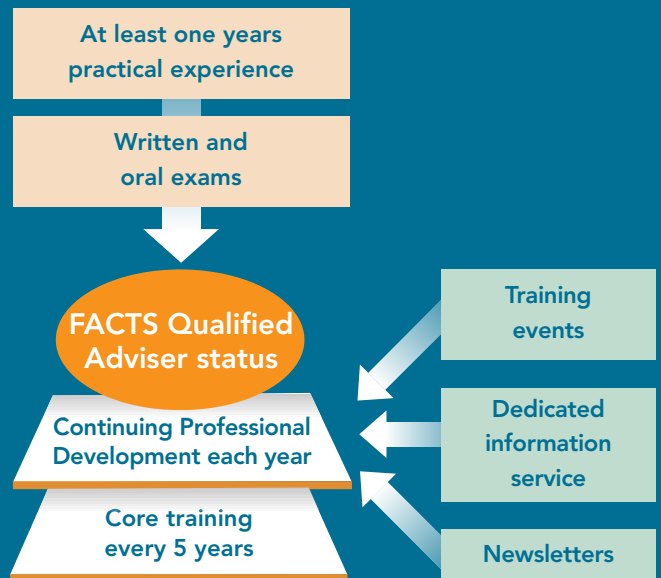
## Practical experience and formal training behind every FQA

Ideally aspiring FQAs should have at least one years practical industry experience before taking the exam which today includes written and oral tests, subject to independent quality assurance.

**Successful completion of annual Continuing Professional Development** is required to keep the FQA status. This ensures FQAs keep abreast of new technical developments, environmental issues and regulations.

Only those who complete annual CPD are listed on the BASIS Professional Register and/or FQA Directory, which can be searched via: [www.basis-reg.com](http://www.basis-reg.com)

During the year, updates are provided through newsletters, training events and dedicated information sources, including a technical information service, by phone, email or fax.



### FQA – FACTS Qualified Adviser

Any individual accredited as an FQA is able to provide advice on crop nutrition to a high and up-to-date standard.

FQAs may be employed by commercial companies to advise and sell products, or work as consultants; in some instances farmers have gained the qualification for their own businesses.

All are required to adhere to a Code of Professional Conduct that ensures high standards.

### FQAs and farm assurance

Farm assurance schemes require all nutrient/fertiliser advice to be provided by an assured adviser. Where advice is sought, farmers need to record the FQA's name and unique number. Such records are assessed by assurance scheme auditors.

### FQAs and governments' policies

The FQA network has extensive contact with UK farmers and so has a strong delivery role to help governments achieve their aims and implement policies. These include:

- Providing practical integrated farming solutions
- Finding catchment advisory solutions to river basin management plans, which include NVZ and nutrient planning and advice (Water Framework Directive)
- A role in the Campaign for the Farmed Environment
- Promoting nutrient resource efficiencies and greenhouse gas mitigating activities (Climate Change Act)

Overall, the FQA network has a significant role to play in addressing food security, environmental protection and assurance.



*"Farm assurance schemes recognise the contribution that FQAs make to assured food standards by guiding growers towards achieving required quality production targets and protecting the farmed environment.*

*We welcome the new FQA training which will allow advisers to prepare our growers for the future demands of crop production."*

David Clarke, Chief Executive, Assured Food Standards



*"Management expertise and good planning is at the core of Integrated Farming. Many LEAF farmers value their FQAs to help find the best farm-specific solutions, to meet the challenges of balancing productive and economically viable farming while reducing the impact on our natural resources and the environment."*

Caroline Drummond, Chief Executive, LEAF

## Looking forward

Simple, relatively inexpensive solutions to crop nutrient management can have significant effects on farm profitability and environmental quality. This is why increasingly agricultural and environmental expertise is becoming linked.

The agricultural industry is determined to make full use of farm advisory channels, such as FACTS, to achieve environmental objectives without regulations or taxes.

### Meeting governments' vision

Many government strategies now highlight the importance of good nutrient management on farms. This is part of an overall drive towards increased nutrient efficiencies that will reduce pressures on the environment and minimise the risks of losses of nitrate and phosphate to water, as well as ammonia or nitrous oxide emissions to air.

The role of professional advisory channels is coming to the fore as governments look to industry to deliver advice and knowledge for the common good. The FACTS community is recognised as able to drive an overall improvement in nutrient practices and to help find field specific solutions where there are higher risk 'hot spots'.



*"The knowledge that FACTS advisers deliver direct to farms, helping translate science into practice, is an underlying component of farmers' ambition to meet our future challenge to 'produce more, but impact less'".*

**Peter Kendall, NFU President**

### New online search facility

This FACTS facility helps connect farmers seeking advice with FOAs. It will also help others, such as Catchment Sensitive Farming Officers, with responsibility for local environmental protection initiatives to develop workable solutions with FOAs on a postcode by postcode basis.

### New CPD core training in nutrient management planning

By 2014, all FOAs will have completed an additional six modules of Continuing Professional Development training in nutrient management planning. This training addresses the latest developments around nutrients and meets the expectations of policy makers. Undertaking this training is critical for any FQA to retain their status, thus maintaining the credibility of the FQA Directory.



*"This latest development in FACTS training will take the Scheme to a new level, which farmers, growers, retailers, consumers and policy-makers can have ongoing confidence in."*

**Geoff Dodgson, FACTS Chairman**

### To find a FQA call:

The FACTS Office at  
BASIS 01335 343945/346138  
facts@basis-reg.co.uk

For a copy of the FQA Directory see:  
[www.basis-reg.com](http://www.basis-reg.com)

For initial training, exam details  
and CPD to become an FQA  
[www.basis-reg.com/agriculture/factstraining.aspx](http://www.basis-reg.com/agriculture/factstraining.aspx)

For more information on the FACTS Information  
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