

Top 25% of arable producers forge ahead.



ProCam
News

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Optimising dose rates

New consultancy service launched

The UK's top 25% of arable producers made even greater ground over average growers during 2004, the analysis of 4cast results for the whole of the UK for the last 12 months is expected to show.

The results, to be the focus of a series of ProCam meetings up and down the country this Spring, show those growers using a high level of technical agronomic support continuing to extend their lead in terms of output and costs savings per tonne when compared with average producers throughout the country.

With the changes to the CAP starting to affect all producers in 2005, the figures put into sharp focus the need for careful appraisal of management and margins throughout the whole growing cycle, says ProCam consultant Nick Myers. The room for error is now narrower than ever.

"Our last full year of figures in 2003 showed that without Area Aid the top 25% of producers achieved margins of £612/ha for First Wheat compared with an average of £464/ha - over 30% more. With OSR, the top 25% achieved margins of £515/ha compared with an average of £364/ha," Nick Myers explains.

The preliminary analysis of 2004 shows margins across the board are slightly down but the difference between good and simply average producers is more marked than ever.

"Our 4cast data shows the average gross margin for winter wheat in 1994 was nearly £980/ha and

10 years on we are now looking at around £350/ha at 2004 prices with Area Aid removed - over £100/ha less than last year even. The focus must be on increasing crop yield and optimising crop outputs - getting agronomic management right will be critical."

Reducing fixed costs, for example using minimum tillage for crop establishment, will have a major impact on both crop and farm profitability, he says.

Maintaining output reduces the unit cost of production. The 4cast data shows that it cost the top 25% of growers 38% less per tonne in spray costs to grow a crop of wheat than the lower quartile growers. This is despite a similar spend per ha.

"Overall the top wheat growers spent £23/tonne on seed, fertilisers and sprays. The average figure was £29/tonne and the lower quartile growers spent £37/tonne.

"At current and prospective crop prices, minimising the cost per tonne is the real key to maintaining a successful arable business."

The full analysis of 2004 4cast results will be announced at a series of ProCam meetings this Spring.

Welcome to the second ProCam 4cast newsletter with news on the latest results produced by the 4cast predictive agronomy system. Remember, one million acres can't be wrong!





New Thinking



ProCam's new 4cast predictive agronomy system based on information from over one million acres of UK arable production continues to produce new information on crop management and challenge many aspects of existing thinking. This issue we look at new information relating to the husbandry of winter wheat and OSR.

Optimum drilling dates for first and second winter wheats could be as far apart as five weeks, suggests the 4cast system.

Comparisons of yields against drilling date over the last five years throughout the country shows the highest yields for first wheat achieved from crops drilled in the first week of September but for second wheats the best date is the first week of October.

Yield drop off for first wheat was 0.2t/ha each week after the 12 September optimum drilling date with a yield of 8.7t/ha compared with 7.7t/ha for crops sown on 22 October.

Sowing second wheats early - at the optimum drilling date for first wheat for example - could lose you 0.5t/ha as there is a significant yield deficit before the optimum date of 2 October.

"Across the board, first wheats yielded 0.98 tonne more than second wheats over the five year period and herbicide spend was about £2/ha more for second wheats at £47.70/ha compared with £45.80/ha for first wheats," ProCam technical director Dr. David Ellerton explains.

In particular, the need for pre-emergence weed control practically doubles with second wheats as opposed to firsts with 32% of growers using pre-emergence herbicides on second wheats compared with 15% for firsts, he says.

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"The results point to the fact that the agronomic requirements for optimum yield in second wheats are greater than many people realise and this must be acknowledged. It is this sort of fine-tuning that can make all the difference between profit and loss and will be increasingly important in the future."

When it comes to OSR, missing the optimum drilling date could mean you're sacrificing up

to 0.5t/ha of yield for every week you are out. 4cast shows the window of opportunity for drilling Winter OSR is narrower than many believe and the penalties for being either early or late are equally severe.

"Across the country there seems to be a two week window, usually within September, where drilling date has little effect on final yield but as soon as you move either side of this the impact on yield is dramatic," David Ellerton explains.

Highest average yield of the last five years was 1999 where the 4cast national average yield was 3.6t/ha. The poorest year was 2001 with 2.5t/ha.

"Of recent years, the most critical year for drilling date was actually last year where sowing either side of the window reduced yields by a staggering 0.48t/ha per week. The average over the last 5 years is around 0.36t/ha per week which even so represents a lot of money for a few days inaccuracy."

Competition Winner

Winner of the Farmers Weekly and Crops Magazine competition designed to increase awareness of the importance of accurate agronomic advice and the way in which 4cast works is Paul Spinks of Manor Farm, Dunham-on-Trent in Nottinghamshire. Paul wins £15,000 of free agrochemicals and agronomic advice courtesy of ProCam.

Congratulations Paul!

Dose Rate Flexibility

A new analysis of 4cast crop protection data based on 10 years of field results suggests optimum dose rates for individual situations vary widely from one field to the next.

The new findings represent the most extensive analysis of dose rate manipulation ever carried out in the UK, says ProCam technical director Dr. David Ellerton.

But although low dose rates can be used on certain fields, producers and their advisors should proceed with extreme caution.

Announcing the findings at the prestigious British Crop Protection Council annual meeting in Glasgow at the end of 2004, Dr. Ellerton warned that no two situations were the same and decisions to reduce dose rates needed careful analysis of many inter-linked factors.

“Obvious issues such as impact on quality and yield, economic balance and consequences of possible control failure need detailed consideration but more intangible issues with particular relevance to following crops, such as higher disease threat, inability to control future problems and increased costs, should be factored in as well,” he says.

With increasing pressure on margins, the new findings are obviously of greater relevance than ever, but simply cutting costs was not the full picture.

“The data shows that in reality few fungicides are applied at full rate. However with fungicides, the rule seems to be the more you spend the greater the benefit. Strob/Qols have been shown to increase photosynthesis, improve stress resistance and reduce



▲ **New findings suggest dose rates can be cut by up to 60%. But when?**

transpiration. Cut too far and you will lose all these advantages.”

In conclusion, however, Dr. Ellerton says considerable savings can be made by reducing dose rates but there are few generalised rules and every situation needs individual appraisal and the correct criteria applied.

“Producers should never attempt to cut rates in isolation and should always use

an agronomist with access to the right information.”

“The bottom line really is to use an integrated crop management approach and use as much agrochemical as is necessary but as little as possible. The key is not necessarily to reduce the cost/ha of inputs but to reduce the cost/tonne of production. Use your agronomist wisely to guide you on this.”

▼ **Some of the main findings are summarised in the box below.**

“Use as much as is necessary but as little as possible.”

Weed Control

“Generally speaking, the relationship between herbicide spend and yield is a flat line so the optimum decision is to spend what you need to protect yield and no more. There is considerable variation in optimum dose rates necessary and this is highly dependent on resistance levels and weed populations,” Dr. Ellerton explains.

“For instance in very resistant grass weed sites, results show high dose rates are critical in optimising weed control whereas on less resistant sites there is scope to reduce rates for the same level of control.”

Broad leaved weeds present even more of a problem when it comes to discerning dose rate. The wide range of broad leaf weed types have varying levels of susceptibility to dose rate of different products. Selecting dose rate in this situation means a careful analysis of the main weed threats and making a judgement from there. Key issues to consider are growth stage of both weed and crop, weed population and resistance status. Other factors to consider would include crop, weed problems and previous herbicide usage.

Overall, an analysis of 4cast data shows optimum rates of herbicides vary considerably depending on weed size and spectrum with considerable expertise needed to ascertain appropriate programs. 4cast data shows that with winter wheat

the top 25% of producers spend £3.30/tonne of production on herbicides with the average being £4.43/tonne and the lower quartile spending £5.85/tonne. (See table below)

Pest Control

Assessment of pest risk should always take in information on previous crop, region, drill date, adjoining crop, seed dressing, weather conditions, previous insecticide and presence of pest, Dr. Ellerton explains.

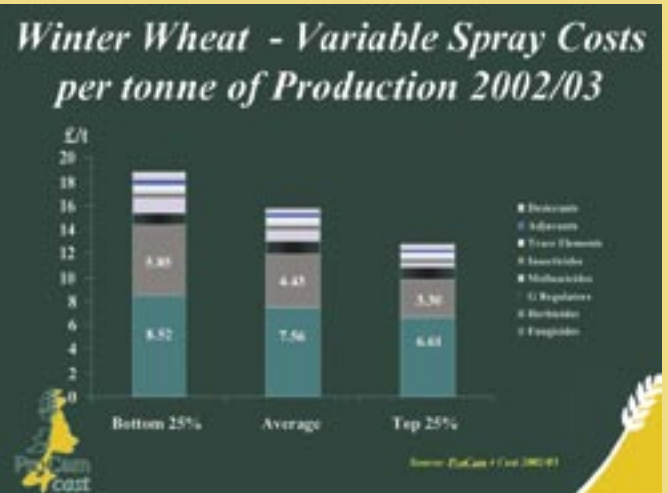
In terms of BYDV, high risk situations should always be treated with a full dose but in medium and low risk situations there is considerable scope to reduce rates.

“However, pest control is relatively low cost so you have to decide whether it is worth taking any risks at all when it comes to cutting dose rates,” Dr Ellerton concludes.

Disease Control

The main influences on optimising dose rates in fungicides are growing resistance issues and the fact that some fungicides encourage significantly higher yields at higher dose rates. Cutting rates could therefore inflict considerable margin penalties.

“Over the last few years we have seen alarming increases in Septoria resistance, particularly to Strob/Qols, which has increased pressure on triazoles. Dose rates of triazoles will need to increase this Spring to compensate for this.”



ProCam Spring Conferences

ProCam is organising a series of farmer conferences this Spring designed to share the latest results from the 4cast program. The series kicks off at our main event for the East at the Tattersalls presentation suite at Newmarket Racecourse. The date is February 9th and subjects to be covered include the latest analysis of 2004 from the 4cast agronomy system, impact of the Mid Term Review, the growing threat of fungicide resistance and much, much more. All solid technical information with one or two controversial issues thrown in.

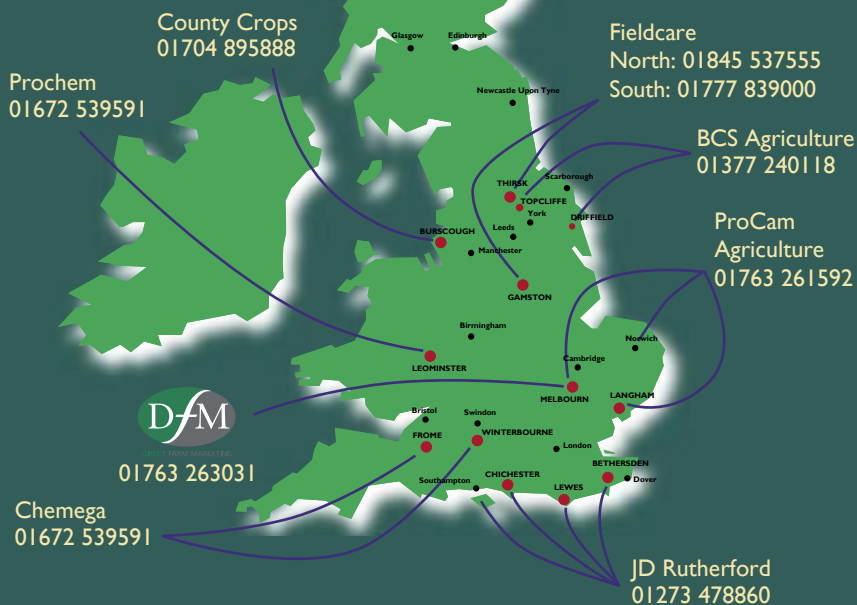
For further information on the nearest meeting to you call us on 01763 261587 or visit our main website www.procam.co.uk or the 4cast website at:

www.procam4cast.co.uk

Did you know?

- ProCam now employs more professional agronomists walking more acres than any other organisation in the UK.
- In 2004, ProCam agronomists walked over one million acres of arable land.
- The 4cast database is made up of 10 years of results and covers all manner of varieties, crop management regimes and growing conditions.

To find out more about ProCam and ProCam 4cast contact any of the ProCam group companies below.



Management Consultancy from ProCam

In response to growing demand from ProCam customers to provide detailed management advice to help them with the challenges resulting from the Mid Term Review, we have now launched ProCam Consultancy.

Our aim is to provide a no nonsense, solid and hard working consultancy service to help you make short work of day-to-day management and legislative requirements - both now and in the future. All provided to the same high standards set by our agronomic advice.

With the impact of CAP Reform changing so much of arable producers' working lives, ProCam Consultancy offers the perfect solution to help you cope with the pressures and problems incurred by this. With transparent pricing, 25 years' of consultancy experience, one million acres of arable production walked each year and a full service approach with built in flexibility, we believe it is the best consultancy package on offer today.

To find out more, call Nick Myers on 01763 261587 for a copy of our new brochure or visit www.procam.co.uk



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