

# TEAGASC Today's farm

MAY-JUNE 2010 VOLUME 21 NUMBER 3

Advice on business, production, environment, and countryside issues

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**COVER** | caption:

**Forestry adviser Noel Kennedy, Mayo farmer Eugene McCartan and sheep adviser Gerry Murphy discuss the benefits of running both sheep and forestry enterprises. See pages 26 to 28.**  
 Picture: Mark Moore



Is é Today's farm an iris do chliaint Teagasc. Bíonn altanna teicniúla ann faoi chúrsaí déiríochta, faoin eallach, faoi chaoirigh agus faoin gcuradóireacht, agus faoi go leor eile. Is minic altanna faoin timpeallacht agus faoi dheiseanna éagsúlaithe feirme san iris freisin. Gné an-tábhachtach den iris is ea na haltanna faoin gcaoi le cúrsaí gnó na feirme a láimhseáil. Ar na topaicí eile a chlúdófar amach anseo beidh táirgeadh fuinnimh ar an bhfeirm, an fhoraoiseacht, an ghairneoireacht, srl. Agus beidh altanna ann ó thráth go chéile faoi chúrsaí feirmeoireachta thar lear freisin.

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COMMENT

# Sheep and trees — a perfect match



**Mark Moore**  
 Editor,  
 Today's farm

The best time to plant trees is always 20 years ago and the best time to be in sheep is always the year after you get out. But times are changing for these two Cinderella enterprises. You can still get 20 years of tax free payments for growing trees — on average, €450/ha, and more for broadleaves.

That's on top of the Single Farm Payment and those in REPS4 can gain further by entering FEPS. Additional benefits include grants to establish the trees, which you may be able to do yourself, and fuel, as the forest matures. Benefits to the

environment are another bonus. Almost every farm has scope for at least some forestry.

Sheep have seen a slight improvement in their fortunes and the new €10/ewe grassland payment is a welcome development. Technology is also available to boost sheep profits; we have a major section on sheep in this edition. Teagasc is a partner in Sheep 2010 at Lyons Estate.

Also in this edition, we feature Mayo farmer Eugene McCartan who has found that sheep and forestry/sawmilling make an almost unbeatable combination: the work peaks don't clash and the trees add to existing shelter, noticeably boosting lamb survival.



Sheep have seen a slight improvement in their fortunes and the new €10/ewe grassland payment is a welcome development



## Key Teagasc appointment

Dr Tom Kelly has recently been appointed director of knowledge transfer. Dr Kelly graduated from University College Dublin with an honours BAgSc in 1977. He completed his Masters, studying milking machine liners in UCD/ Moorepark, before undertaking post graduate research on the influence of farm building design and environmental factors on calf performance in UCD/ Grange for his PhD. He also holds an honours MBA from the University of Limerick.

Congratulating Dr Kelly on his appointment, Teagasc director Professor Gerry Boyle said: "Transferring existing knowledge and new technologies onto farms to improve the competitiveness and sustainability of Irish farmers is a top priority for Teagasc. We have excellent professionals working in our advisory and education services, and under Tom's leadership, there will be a renewed emphasis on business and technology. Over the last two years, he has spearheaded Teagasc's financial campaign to assist individual farmers who have encountered financial difficulties, due to the downturn in agricultural commodity prices and the downturn in the wider economy."

Commenting recently, Dr Kelly said: "Farmers have taken a huge cut in their incomes in recent years. Income support schemes have been discontinued, or are under threat. Improved efficiency and better market returns are the only hope for a better future. The hard work of improving efficiency will require a major effort by farmers and advisers. Staff and budget restrictions will force a major reorganisation within Teagasc; however, its priority focus will be on developing people through its education programmes. Teagasc will continue to prioritise the business and technology service, with the aim of improving the competitiveness of farmer clients and providing essential rural development supports."



John Concannon, Peter Farrelly, John Keeling, Pat Farrelly, Peter Young, Prof Gerry Boyle and Barry Caslin at the JFC Innovation Awards where the Farrelly brothers were outright winners.

## Census continues long tradition

The 2010 Census of Agriculture (COA) to be undertaken by the Central Statistics Office (CSO) on 1 June continues a tradition first started in 1847. Censuses of Agriculture were conducted annually after 1847 until 1953. They were conducted every five years between 1960 and 1980 and now the frequency is once a decade.

It is one of the oldest such series in the world and comparable British returns did not begin until 1867. Credit for the series must go to the farmers who supplied the figures, those who collected them, and to the staff who processed them.

### Why is it being held in June 2010?

The Census is being undertaken within the framework of the statistical programme of the European Union. Similar censuses are being conducted in all EU member states during 2009/2010 in order to provide comparable statistics from all Member States.

The purpose of the Census of Agriculture is to collect detailed statistics on the structure of agricultural holdings in Ireland which is crucial in determining the development of agricultural policy in Ireland and the European Union.

### How is it being conducted?

Holdings of at least one hectare will be sent a Census questionnaire. Farms with less than one hectare will also be included if they are engaged in intensive production e.g. of pigs or poultry. The Census questionnaire, together with an information booklet will be posted to farmers in the week preceding 1 June 2010. It is important that the questionnaire be completed and returned to the CSO by Tuesday 8 June 2010.

The CSO is committed to making the process as easy as is practicable. The 2010 Census of Agriculture will be the first Census to use a combination of administrative and completed paper questionnaires. Information on cattle numbers and the area under cereals and certain crops will be obtained from administrative records. While the questionnaire is eight pages long, not all sections will apply to every farmer.

### Is completion mandatory?

There is a statutory obligation upon all agricultural producers to complete their Census. The strict confidentiality of all information provided is guaranteed by both Irish and EU law.



All agricultural holdings of at least one hectare will be sent a census questionnaire.

BALLYHAISE AGRICULTURAL COLLEGE OPEN DAY, 6 MAY, BALLYHAISE, CO CAVAN, 10.30AM

# Regaining control of dairy herd fertility

**Brendan Horan**, Teagasc Ballyhaise

**T**HE Ballyhaise college systems experiment provides dairy farmers in the border, midlands and western (BMW) regions with locally generated research information and technology to secure their dairy farming livelihoods post milk quotas, irrespective of fluctuations in milk prices, interest rates and inflation.

A key objective of system development is to realise dairy herd reproductive performance, which facilitates efficient milk production and allows dairy farmers to expand herd size post quotas.

The challenge is to achieve high animal performance over a long grazing

season, based on a predominantly pasture diet. National statistics show that reproductive capacity on the average Irish dairy herd is poor (average national calving date of mid-March, 52% of animals calving in six weeks after calving start date; CMMS & ICBF statistics, 2009), resulting in significant financial

losses. In contrast, the reproductive performance of the Ballyhaise College herd has improved dramatically during the last four years, as shown by the reduction in 13-week empty rates from 35% to 17%.

The open day on 6 May will provide dairy farmers with research updates on the Ballyhaise approach to improving reproductive performance, based on the most up to date information.

Preliminary results from this ongoing study demonstrate that considerable potential exists to increase animal productivity from pasture in the BMW region by increasing sward productivity in combination with an appropriate stocking rate and a compact calving high EBI herd.

“ The Ballyhaise event is open to the public on 6 May at Ballyhaise Agricultural College from 10.30am

SHEEP 2010, UCD LYONS RESEARCH FARM, NEWCASTLE, CO DUBLIN, 26 JUNE

# Sheep2010

**Michael McHugh**, Teagasc, Ballyhaise

**T**EAGASC, UCD and Sheep Ireland, in partnership with the *Irish Farmers Journal* and Bord Bia, have come together to organise Sheep2010 at the UCD Lyons Research Farm, Newcastle, Co Dublin, on Saturday 26 June. While the event will cover all aspects of the Irish sheep industry, the major focus will be on technology and how technical efficiencies can help improve profits for sheep farmers.

Teagasc, Department of Agriculture, Fisheries and Food, Bord Bia and Sheep Ireland will highlight the key factors in flock management, health, breeding and marketing that can improve profits in sheep.

Demonstrations and seminars will focus on factors that can improve efficiencies at farm level and boost returns from the marketplace. For their marketing seminar, Bord Bia have invited a number of Irish and French sheep meat buyers to discuss their market requirements and how Irish sheep farmers can meet these requirements. Cookery and carcass demonstrations will also feature on the Bord Bia stand. A seminar involving the Department of Agriculture,



Teagasc and invited speakers will discuss the new EID requirements and how EID can be used as a tool to improve flock management. A flock health seminar will be addressed by personnel from the Regional Veterinary Laboratories, UCD and Teagasc. This seminar will focus on the diseases that are of greatest economic significance on sheep farms — abortion, foot rot and parasite control. Sheep Ireland will exhibit all aspects of the new sheep breed improvement programme — Lamb-Plus, MALPS and CPT programmes. Seminars and demonstrations on breeding and breed improvement will be held at the Sheep Ireland stand.

The Belclare, Charollais, Suffolk, Texel and Vendeen sheep societies will be holding their national breed championships at the event. The Young Shepherd competition, sponsored by the RDS and organised by Macra na Feirme and the agricultural colleges, also is planned. In addition, a fencing competition and sheepdog trials will form part of the day's programme. The main sponsors of the event are Kepak, Super Valu and Intervet Schering Plough.

Anyone with an interest in sheep production should find Sheep 2010 worthwhile.

## SHEEP FARM WALKS

Tuesday, 11 May	Philip Higgins, Leekfield, Skreen, Sligo	6.30pm
Wednesday, 12 May	Eamon Markey, Ballymackney, Carrickmacross, Monaghan	7:00pm

## BEEF OPEN DAY, TEAGASC GRANGE, COMEATH, 15 JUNE

There will be a Beef Open day at Teagasc Grange on 15 June — watch out for details closer to the event.

# Focus on factors under your control

**Dr Michael G Diskin**  
Teagasc, Athenry

**W**HILE the national breeding ewe flock has declined from a peak of 4.8 million in 1992 to 2.60 million ewes in 2008, sheep production is still a major farm enterprise. With a farm gate value of €171.4m in 2008, the industry accounted for 3% of Ireland's Gross Agricultural Output.

Currently, there are 31,756 Irish sheep farmers (CSO 2008), about 1.95 million lowland ewes and 0.65 million hill and mountain ewes. Almost three quarters of our sheep output is exported. The lowland sheep flock accounts for 85% of production.

National Farm Survey (NFS) data clearly shows that well-managed sheep production enterprises return gross margins that compare very favourably with other dry stock enterprises. The NFS also shows that the number of lambs reared per ewe joined, stocking rate and concentrate feeding to ewes and lambs are key drivers of profitability. The improvement in lamb price this year, as well as the recent introduction of the €10/ewe grassland payment, should further improve margins from sheep production.

There are a number of key components that individual sheep farms can adopt that will enhance profitability. Specifically, sheep farmers should focus on factors that are under their control, including:

**Adopt a three to five-year business plan for your sheep enterprise.** Here, the focus should be on drivers of profitability. Concentrate on production from grazed grass. Grass is the cheapest form of feed, and must be central to efficient profitable lamb production. The objective must be to firstly grow sufficient grass, and secondly to maintain quality leafy grass in front of the ewes and lambs at all stages. There is also scope on many farms, particularly on dry farms, to extend the grazing season at both ends of the year.

**Develop a plan to provide prolific flock replacements.** Serious lowland sheep producers must develop a strategy of producing, either from within their own flock or from an outside source, prolific flock replacements. Numerous studies show that the female progeny from Belclare rams have the capacity to wean 1.75 lambs per ewe joined.

Carefully examine the amount of concentrate feeding to lambs. There is significant evidence that on some farms, excessive amounts of purchased concentrates are fed to both ewes and lambs. Much of this is unnecessary, and is doing nothing for profitability, except replacing cheaper grazed grass in the



Dr Michael G Diskin, sheep enterprise leader, Teagasc, Mellows Campus, Athenry, Co Galway.

diet of the ewes and/or lambs. Consider creep-grazing lambs ahead of ewes as an alternative to creep feeding of concentrates to lambs

**Flock health plan.** Resistance to anthelmintics is becoming a problem on some farms. Producers are advised to strategically use these drugs and ensure the correct dosage is delivered, combined with the provision of "clean pasture" to lambs after weaning.

**Winter shearing of ewes.** Research at Athenry has shown that shearing ewes at the start of housing in December will increase lamb birth weight by about 0.50kg and will increase weaning weight by about 2kg, resulting in advancing age at slaughter by two weeks. This is a significant and easily-attainable productivity gain that could be financially very worthwhile, particularly in an environment of declining lambs prices from June onwards.

**Learn from Teagasc BETTER sheep farms.** Teagasc have established a number of hill and lowland BETTER sheep

farms to accelerate technology transfer from research to farm practice. Well established breeding, grassland, nutrition and flock health technologies are being applied and evaluated on these farms.

Discussion groups and B&T advisers visit these farms on a regular basis. If not already a member of a discussion group, sheep producers are encouraged to join one, and learn and adopt technologies from these BETTER farms. As always, your local Teagasc adviser can provide sheep advice or put you in touch with a colleague who can.

**Further integration of hill and lowland sectors.** In some of the mountain and hill areas, producer groups have been established to produce prolific crossbred replacements for fat lamb production on the lowlands. There is scope for further expansion of such initiatives, and the certification of the health status of lambs from these groups would further enhance their value and attractiveness to lowland buyers.

# Two Problems

## One Solution

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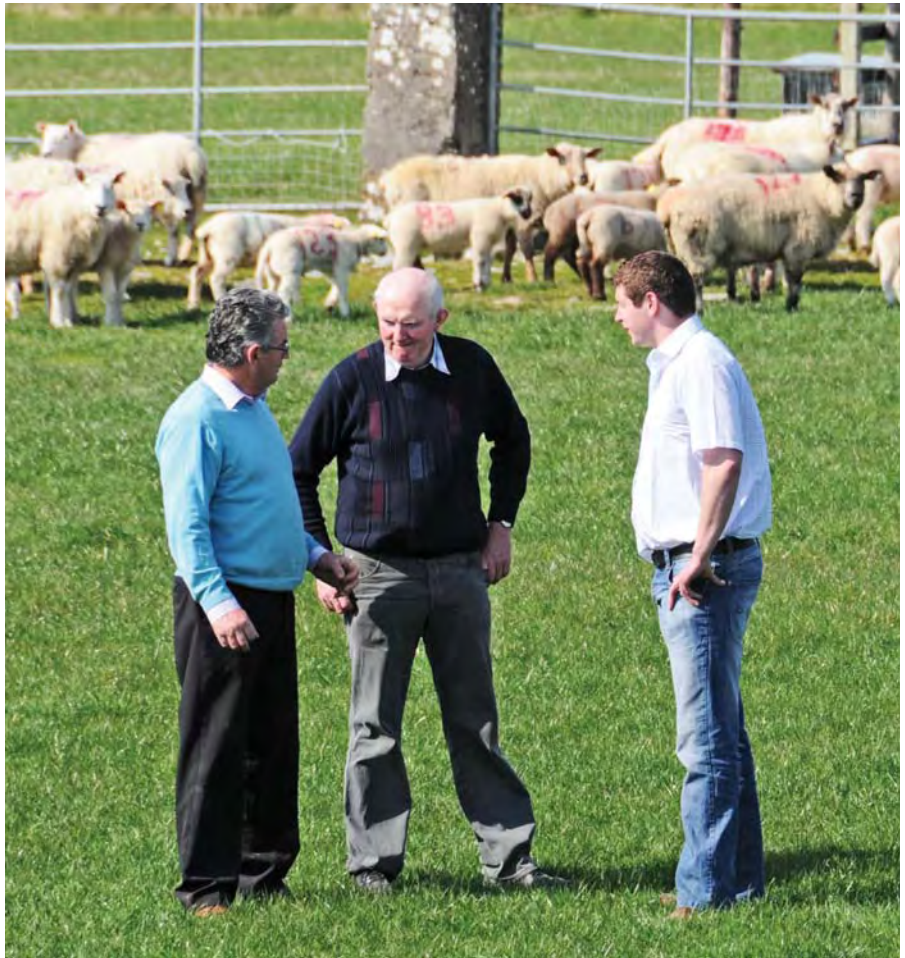
# sheep

## BETTER Farm sheep programme

### Some pointers from year one

**Ciaran Lynch**

Teagasc Animal Production Research Centre, Athenry



BETTER farmer John Curley, B&T adviser Eamonn Egan and Ciaran Lynch.

A key objective in the BETTER Farm sheep programme is to develop a management plan for each farm to improve the bottom line. Objective information on flock performance is an essential element in this process. During 2009, the sheep flocks involved in the BETTER Farm Programme measured full individual animal performance based on electronic tagging (EID). All ewes on these farms are fitted with EID tags and the farmers applied EID tags at birth to all lambs born in 2009.

Grass supply was routinely measured throughout the grazing season and all inputs and outputs were captured through the recording system used for the Teagasc National Farm Survey.

As information on each flock was built up during 2009, outcomes were examined in detail at meetings involving the farmer and his B&T adviser, the sheep specialist, and research staff from Athenry. These discussions led to agreed changes to the management plan as all the team members work towards a thorough understanding of the strengths and weakness of each farm system.

Some key findings relevant to all systems emerged from this process:

- A clear policy is required on flock replacements, including
  - Consistent annual replacement rate and

- Defined breeding policy to generate prolific replacements (lowland farms)

- Maximise crossbred lamb production from hill flocks.
- Output per ewe is key.

- The plans agreed for the BETTER farm lowland flocks all include achieving an output of over 1.6 lambs reared per ewe joined. This requires a breeding policy to deliver ewes with the genetic potential for litter size of 1.9.

- For BETTER farm hill flocks, the target is to get 1.1 lambs reared per ewe joined. This requires a litter size of 1.3. The analyses show that this can be achieved by improving body weight and body condition at joining.

- Lambing spread was excessive in

many cases. The target is to have 90% of ewes lambing within a four-week period. Results from 2009 showed that only two of the flocks achieved this target.

- Lambing date should match expected pattern of grass growth in spring.
- A poor grass supply in spring reflects the absence of a definite policy on closing fields in late autumn to provide early grazing. The grass supply profiles for 2009 highlight the need for such a policy.

- Grassland management has a major effect on both lamb and ewe performance, unless this is obviated by input of concentrates (which will impact negatively on the financial returns).

- There is considerable scope to improve lamb growth rate on both lowland and hill flocks without relying on concentrates. Thus, on two of the lowland flocks, the vast majority of lambs were finished off grass alone.

- It is crucial to establish the anthelmintic resistance status of the parasites on a farm for effective parasite control. The data collected during the 2009 season indicated white drench (bendimidazole) resistance on some of the BETTER farms — an aspect that will be monitored closely over the coming season by regular monitoring of faecal egg count, along with testing the various products available.

**Table 1** | BETTER farms

Hill farms	Location	Teagasc adviser
David McLaughlin	Greencastle, Co Donegal	John Cannon
Colm O'Donnell	Aclare, Co Sligo	Tom Coll
James Lally	Westport, Co Mayo	John Noonan
Lowland farms		
David Mc Laughlin	Greencastle, Co Donegal	John Cannon
John Curley	Four Roads, Co Roscommon	Eamonn Egan
John Kelly	Baltinglass, Co Wicklow	Hugh Mahon
Brendan O'Sullivan	Cahirciveen Co Kerry	Michael Gottstein



# No regrets for this Kerry sheep farmer



**Michael Gottstein**  
Teagasc, Killarney

**T**IMMY and Mary Fleming, with their four children, Karol (14), Aiden (12), Sean (10) and Sarah (7), farm in the scenic Muckross area on lands adjoining the Killarney National Park.

“Once I left school, I couldn’t wait to go sheep farming” was Timmy’s comment when I asked him why he and his wife Mary chose to be full-time sheep farmers. The Fleming family run around 650 ewes plus replacements (300 Scottish blackface ewes and 350 lowland ewes) on 14 hectares (35 acres) of owned greenland plus commonage. They also lease/rent a further 48 adjusted hectares (120 acres) about eight miles from the home farm.

## The hill flock

The 300 hill ewes are mated with Scottish Blackface rams and are grazed on the hill areas for the summer. Animal performance on the hill is very good, particularly as the sheep now have a huge range, given the number of people that have left hill sheep farming over the last decade. Last year, even the ewes with male Scottish Blackface lambs were grazed on the hill for the summer and these lambs averaged 30kg at weaning in early October. Rams are turned out in the first week of November, so lambing starts around the first of April.

## The lowland flock

Lowland ewes are of mixed breed, many having been bought in over the last few years.

This flock is mated with terminal sires (Texel) to produce French market specification lambs, or maternal sires (Belclare) to produce prolific flock replacements for the lowland flock. All ewes lamb outdoors starting in the first week of March.

## Meal feeding

The Fleming family run a low cost system. Almost all of the ewes are outwintered on either the hill or selected lowland areas of the farm. A limited amount of silage is made, which can be fed to sheep indoors when necessary. Meal feeding is kept to a minimum.

In general, only triplet bearing and thin ewes receive concentrate supplementation prior to lambing. However, this year, due to a lack of grass, virtually all sheep were fed concentrates before lambing. Triplet lambs and lambs off old thin ewes are run as a separate group (usually about 10% to 15% of the lamb



Timmy Fleming relies heavily on his trusted sheepdogs.

crop) and have access to creep feed. All other lambs are fed a grass-only diet until October, when meals are introduced to finish off the remaining lambs.

Again, this year, because of the very cold spring and due to the lack of grass, all ewes have been getting 1kg per head per day of pelleted concentrate on the ground post-lambing. Meal is fed in the mornings only, so that freshly lambed ewes would have ample time to find their lambs during daylight hours, thereby reducing miss-mothering.

## Increasing output

By carrying out a Teagasc eProfit Monitor analysis annually, Timmy can benchmark his costs against other sheep farmers.

Variable costs on the Fleming farm are low, therefore to make substantial progress on farm profit increasing output has been the main focus.

Because of the commonage land/framework plan, the maximum number of ewes that the farm can hold has been capped. To increase the output from the

sheep flock, the following strategies have been adopted:

- Increasing litter size of the lowland flock to 1.7 lambs per ewe. To achieve this, Belclare rams were purchased in 2007 and have since been used to sire replacements for the lowland flock.
- Joining ewe lambs with the ram in their first season. Only well-grown ewe lambs are selected as flock replacements and these are mated as ewe lambs. For the past two seasons, a litter size of 1.5 lambs per ewe lamb has been achieved with the Belclare cross ewe lambs.
- Increase lamb price. To achieve this goal, Timmy is chairman and one of the founding members of the Ring of Kerry Quality Lamb Group, which pays its members a premium price for lambs. This is achieved by marketing lambs directly to the end user.

Enthusiasm, high levels of animal performance, good use of grass and thinking outside of the box has made sheep farming a sustainable career choice for Timmy and Mary Fleming.

# Breeding can help beat parasites

**JP Hanrahan & B Good,**  
Teagasc Athenry

**G**ASTROINTESTINAL parasite (roundworm) infection in lambs is one of the key flock-health challenges facing sheep producers. Relying on anthelmintic treatment alone is not a sustainable strategy because of the potential for the parasite population to develop resistance to drugs. A sustainable approach to minimising the effects of parasite infection on lamb growth must include provision of 'clean' swards (swards with a very low level of infective larvae); strategic use of effective anthelmintic treatment; and selection of sheep breeds that have higher resistance to the roundworm challenge.

It is well established that individual sheep differ in their genetic resistance to the roundworm species that cause problems between May and September. Genetic differences between breeds and results from Athenry are summarised in *Table 1*. It is clear that there is a major difference in resistance between Suffolk and Texel sheep. We have an ongoing programme in collaboration with Dr Torres Sweeney in UCD, using these breeds, to identify the genes that are involved.

Ultimately, DNA-based tests may be developed to aid selection for improvement of resistance in sheep. Research at Athenry shows that the difference between breeds is present not alone in lambs but also in ewes and rams, which has implications for any management strategy for controlling the effects of these parasites under farm conditions.

An obvious question is — what is the impact of a difference in resistance to parasites on lamb growth? We recently completed a two-year trial at Athenry to compare the effect of increased parasite challenge on performance of Suffolk lambs with that on Texel lambs.

The sheep in the study were purebred and lambs were dosed at five weeks of age to control *Nematodirus*. The sheep were grazed either on a 'clean' sward (a new reseed with minimal level of parasite challenge) or on a 'dirty' sward (permanent pasture grazed only by sheep for previous 10 years). Lambs were weighed at weaning (14 weeks of age) and at 18 weeks of age and faecal samples were collected from each lamb at these times to measure the number of roundworm parasite eggs per gramme (faecal egg count).

The key results on lamb performance and FEC are given in *Table 2*. It is clear that exposing Suffolk lambs to parasite challenge had a significantly greater effect on liveweight compared with any effect on Texel lambs.



**Seamus Hanrahan says that exposure to parasite challenge has a much greater effect on the performance of Suffolk than on Texel lambs.**

At 14 weeks of age (weaning), the Suffolk lambs on the 'dirty' pasture were 2.1kg lighter than those on 'clean' pasture, whereas the corresponding effect on Texel lambs was only 0.3kg. By 18 weeks of age, the effect of the 'dirty' pasture on Suffolks was -4.6kg compared with an effect of only -1kg on Texels.

The Suffolk lambs would have needed anthelmintic treatment to reduce the effect of the parasite challenge. However, it is unlikely that routine anthelmintic treatment would have completely eliminated the effect of the increased parasite challenge on the liveweight of the Suffolk lambs.

**Table 1** | Relative (%) roundworm resistance for sheep breeds and crosses

Breed <sup>1</sup>	Purebred	Crossbred
Suffolk	100	100
Texel	22	40
Belclare	26	-
Ile de France	40	-
Charollais	-	50

<sup>1</sup>If Suffolk lambs have a FEC (eggs per gramme) value of 500, then Texel lambs are expected to have 110 eggs per gramme; where Suffolk-x lambs have a FEC of 500 Texel-x lambs will have a FEC of 200, etc.

**Table 2** | Comparison of Suffolk and Texel lambs under two levels of parasite challenge

Pasture	Breed	FEC at		Weight (kg) at	
		14 weeks	18 weeks	14 weeks	18 weeks
Clean	Suffolk	68	103	36.7	41.7
	Texel	47	71	34.6	39.6
Dirty	Suffolk	445	677	34.5	37.1
	Texel	159	243	34.3	38.6

## IN SHORT | parasites

- Exposure to parasite challenge has a much greater effect on the performance of Suffolk than on Texel lambs.
- Suffolk lambs will benefit most from 'clean' grazing (i.e. pasture that harbours a low parasite challenge).
- If a 'clean' pasture is not normally available, farmers should consider using a terminal sire from breeds, such as the Texel, that have a proven capacity to resist parasite challenge.
- Where lambs have Suffolk ancestry, their

parasite burden should be monitored (faecal egg count), so that anthelmintic treatment can be administered when required.

- Where such treatment is given, it is essential that:
  - the parasite population of the farm is susceptible to the active ingredient in the product.
  - treatment is given according to the manufacturer's instructions.

# Rams for terminal crossing

JP Hanrahan, Teagasc Athenry

**T**HE main aspect of a lowland sheep enterprise that can be affected by the choice of terminal sire is lamb growth rate to slaughter. Breed evaluation studies in Teagasc have shown that there are differences among breeds when used as terminal sires. Of the three main breeds used: Suffolk, Texel and Charollais, lambs sired by the Suffolk generally achieve the fastest growth rate.

There is one exception to this general rule — when the ewes involved are Suffolk-cross type — the breed differences are eliminated because the Suffolk-sired lambs are no better than the lambs sired by the other breeds.

The Texel, in particular, but also the Charollais, is more resistant than the Suffolk. The well-established advantage of Texels for producing lambs with lower carcase fatness is unfortunately not a major issue given the absence of a payment system that rewards leaner carcasses.

The next question is — how large are the differences between rams? The scope for getting a ram that is 'ahead of the posse' is often overstated by breeders and commercial farmers. In a recently completed project at Athenry, 113 rams (mainly Suffolk and Charollais) were evaluated under commercial conditions, involving six commercial flocks.

Each ram sired about 70 lambs and these lambs were weighed at various times so that liveweight up to, and at, 120 days of age could be determined. The average weight of the single lambs was 39kg, so they were within a few kilos of slaughter. The differences among the rams for 120-day weight of their progeny are summarised in *Figure 1*.

About 15% (about one in seven) of the rams had a positive effect of +0.5kg, or greater, on 120-day weight and only 4% (one in 25) had an effect of +1kg or more. These results show that a ram that adds more than 1kg to progeny liveweight, compared with his breed average, is rare. Producers need to pay attention to all of the factors within their control — such as nutrition to ensure good birth-weight, attention to pasture management and sward quality.

Identifying individual rams that have the potential to improve lamb performance requires an effective

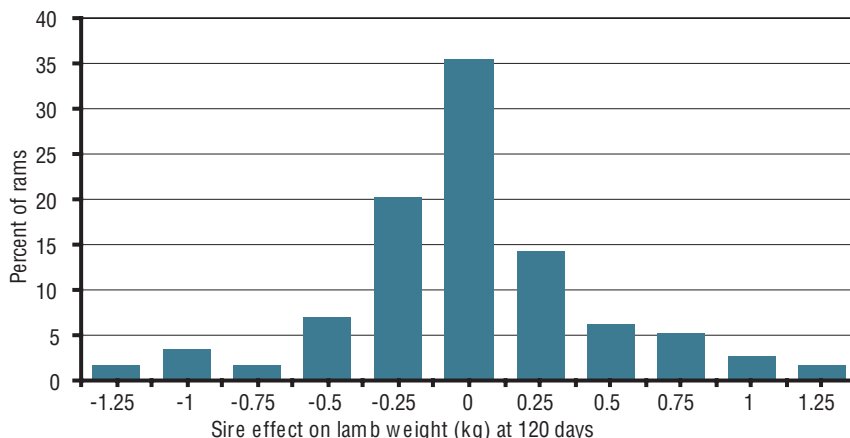
genetic evaluation system. The study referred to above was conducted while pedigree rams were being indexed using the Lean Meat Index system. The results showed that the information from this system did not reliably identify the better rams. We found no difference between rams with high (top 10%) LMI values and rams without breeding value information.

The scale of the differences among rams will reflect the evidence in *Figure 1*; but a new system doesn't automati-

cally mean we'll find large genetic differences among rams. What we can be sure of is that if real genetic differences among individuals are identified, that improvement programmes, consistently applied, will increase performance and benefit producers.

Top quality grassland management and attending to other husbandry issues must be combined with genetic improvement to maximise the potential of lowland sheep systems.

Figure 1. Effect of sire on live weight of progeny at 120 days



“ If real genetic differences among individuals are identified then improvement programmes consistently applied will increase performance and bring benefits to producers



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# Fresh hope for worm control?

Dr Barbara Good Teagasc, Athenry

**W**HILE infection with gastrointestinal parasites (roundworms) is normal for sheep, problems arise when animals carry a heavy parasite burden. Because sheep develop immunity with age, young animals are especially prone to parasites, and display disease symptoms such as diarrhoea and failure to thrive.

Good management, including the appropriate use of anthelmintics will help. However, the effectiveness is reduced when anthelmintic resistant worm populations emerge (i.e. worms that survive anthelmintic treatments at levels that would normally kill them). A nationwide study of Irish lowland sheep farms revealed evidence for significant departures from 'best' treatment practices on some farms, plus high incidence of anthelmintic resistance in mid to late season roundworms. Resistance to benzimidazole was observed on 95% of flocks and to levamisole in 48% of flocks examined.

The recent launch of a highly effective, fourth class of wormer (Zolvix, monepantel, Novartis Animal Health) for sheep on the Irish market (*Table 1*, available on prescription only) enhances our opportunity to develop successful and sustainable control strategies. However, farmers must be mindful that, as with all anthelmintics on the market, the threat of resistance to this new drug class also exists.

This is the first new class of anthelmintic to enter the market in 25 years and it is critical that its efficacy is protected through the incorporation of the essential elements for a sustainable worm control strategy in the flock management plan (*Table 2*). More information on these recommendations has been published by SCOPS ([www.nationalsheep.org.uk](http://www.nationalsheep.org.uk)).

While farms with multiple drug resistance will have no choice but to use monepantel, guidelines by the company (Novartis) on the use of this new anthelmintic include its use in the flock once a year, probably mid-season in lambs (when it is will likely have the most impact on worms resistant to other drugs and on productivity), and in quarantine treatment.



**Table 1** | Table 1 Anthelmintic groups, route of administration and mode of action

Group	Class of anthelmintics	Colour	Route of administration	Mode of action
1-BZ	Benzimidazoles & Probenzimidazoles	White	Oral	Starves the worm
2-LM	Imadazothiazoles (Levamisole) & Tetrahydropyrimidines (Moralent)	Yellow	Oral/Injectable	Paralyses the worm
3-AV	Macrocyclic Lactones: (Avermectins & milbemycins)	Clear	Oral/Injectable	Paralyses the worm
4-AD	Aminoacetonitrile derivatives (Monepantel)	Orange	Oral	Paralyses the worm

**Table 2** | Key elements of a sustainable parasite control strategy

**Establish anthelmintic resistance status on your farm**

- Faecal egg count reduction test

**Use anthelmintic only when necessary**

- Do not routinely treat adult ewes pre-mating (very few adult ewes will have significant worm burdens at this time to warrant treatment)
- Monitor faecal egg count to inform dosing decisions

**Select the appropriate anthelmintic for the task**

- Use a narrow spectrum product where possible; e.g. if treating for fluke specifically, then treat with a flukicide not an anthelmintic that kills fluke and worms
- Use benzimidazole or levamisole for control of *Nematodirus* (there is no evidence for anthelmintic resistance in these worms)

**Administer drugs effectively — avoid under dosing**

- Check accuracy of dosing equipment on a regular basis
- Follow manufacturer's recommendations
- Dose according to the heaviest in the group
- Deliver drench back over the tongue (to

ensure drug is delivered to the rumen)

**Reduce dependence on anthelmintics**

- Plan to have grazing areas with lower challenge for susceptible stock, e.g. silage aftermath
- Alternate grazing with cattle
- Use breeds known to be more resistant to roundworms

**Prevent the importation of resistant worms in purchased animals — use an effective quarantine strategy**

- Treat with moxidectin and monepantel sequentially or monepantel on its own and keep off pasture for 24 to 48 hours (should have access to feed and water though), then turn on to 'dirty' pasture (this allows your new sheep to pick up parasites particular to your farm and so dilute any resistant parasites that may be left inside the animal after the quarantine treatment)

**Adopt strategies which maintain a susceptible population of worms on your farm**

- Part flock treatment — leave about 10% untreated

**Seek advice from veterinary practitioner/adviser.**

# A role for alternative forages?

Dr Tim Keady, Teagasc, Athenry

**H**IGH levels of lamb growth post weaning can be achieved from grazed grass alone. However, many commercial producers are unable to finish lambs without concentrate supplementation. Studies at Athenry have shown that concentrate supplementation at pasture increases lamb performance but is not economically justified for lambs that are marketed after the end of June.

In recent years there has been interest by producers of mid-season prime lamb in growing alternative forages, particularly tyfon, when reseeding pasture for lambs post weaning. A recently completed study at Athenry evaluated the effects of reseeding and use of tyfon and chicory on the performance of weaned lambs.

## Grazing study

A grazing study compared tyfon and chicory grazed either as pure stands or in combination with perennial ryegrass. The performance of lambs grazing old permanent pasture was evaluated also to determine the benefits from reseeding. Paddocks were ploughed and seeded on 29 May to give the following treatments:

- Perennial ryegrass (PRG)
- Chicory plus PRG
- Tyfon plus PRG
- Chicory
- Tyfon

The perennial ryegrass mixture was based on intermediate heading varieties and is presented in *Table 1*. The old permanent pasture had been grazed by ewes for the last 10 years, and had been used recently for extended grazing. The old permanent pasture sward was made up of Meadowgrass 39%, Perennial ryegrass 27%, Cocksfoot 11%, Clover 8.5%, Timothy 7.5% and weed species 7.0%. Weaned lambs grazed the experi-



Dr Tim Keady studies a crop of chicory.

mental treatments from 7 July until being drafted for slaughter. Lambs were drafted every three weeks. The effects of grazing treatment on lamb performance are presented in *Table 2*. High levels of lamb performance were achieved; the average daily liveweight gain being 217g/day. Relative to the new perennial ryegrass sward, including chicory in the seed mixture reduced daily liveweight gain by 36g/day but increased kill-out percentage by 1.2 units. Includ-

ing tyfon in the seed mixture had no beneficial effect on lamb performance. Grazing pure stands of either tyfon or chicory did not increase animal performance compared with lambs grazing the new reseeded pasture or the old permanent pasture. Lambs grazing the old permanent pasture produced the same daily liveweight gain as the lambs on the other treatments.

The distribution of herbage yield during the grazing season was influenced by the reseeding treatment. For example, the new perennial ryegrass sward and the swards which included perennial ryegrass with either chicory or tyfon produced the same total dry matter yield during the grazing season. However, the swards containing tyfon produced higher yields during the first rotation but lower herbage yields during the subsequent rotations relative to those containing perennial ryegrass alone or in combination with chicory.

The effect of sward type on lamb grazing days has a major impact on stock carrying capacity, and on liveweight gain per hectare (*Table 3*). In the reseeded pastures, relative to perennial ryegrass, including either chicory or tyfon in the seed mixture did not increase lamb liveweight gain per hectare. Use of chicory as a pure stand resulted in the same lamb performance as perennial ryegrass (*Table 2*). Liveweight gain per hectare was reduced by 42% due to much reduced stock carrying capacity.

**Table 1** | Grass seed mixture, Athenry

Variety	Seeding rate (kg/ha)
Grass - Aberdart	2.5
- Aberstar	9.9
- Greengold	7.4
- Dunluce	7.4
Clover - Chieftain	1.2
- Crusader	1.2

## IN SHORT | the problem

- High level of lamb performance was achieved in the study.
- Old permanent pasture sustained the same level of lamb performance as reseeded pasture.
- Including tyfon in the reseed had no beneficial effect on lamb performance.
- While including chicory in the reseed reduced daily liveweight gain, kill-out percentage was improved.
- On sheep farms the reseeding date should be based on herbage demand, which is lowest from July onwards when lambs are weaned and winter forage requirements have been conserved.

**Table 2:** Effect of sward type on lamb performance

	Sward type					
	Perennial ryegrass (PRG)	Tyfon + PRG	Tyfon only	Chicory + PRG	Chicory only	Old Permanent pasture
Liveweight gain(g/d)	226	220	213	190	226	219
Kill-out (%)	42.1	42.6	42.9	43.2	43.4	42.1

**Table 3:** Effect of sward type on lamb output per hectare (relative to PRG)

	Sward type				
	Perennial ryegrass (PRG)	Tyfon + PRG	Tyfon only	Chicory + PRG	Chicory only
Lamb grazing days	100	94	92	99	56
Liveweight gain (kg/ha)	100	90	87	93	58



The farmers involved with Lamb Direct, pictured with their refrigerated delivery van (from left): Seamus Hughes, Derryvee, Tourmakeady; Ray Cawley, Derryribbeen Clogher; Tom Staunton Shanvalleyard, Tourmakeady; Joe Scahill, Fahburren, Prospect, Westport; Mark Walsh, Knockfin, Westport; John Joyce, Shanafarahau; Oliver Cawley, Derryribbeen, Clogher, and Phil Staunton, Tourmakeady.

## Lamb Direct — a taste of the West

In November 2009 eight sheep farmers from west Mayo launched Lamb Direct Ltd, selling lamb straight to households, restaurants, hotels, etc



**John Noonan**  
Teagasc Westport

**T**HE farmers are members of the Mayo Mule and Greyface group which began 25 years ago. Over the years the group focus has been on quality and delivering what the customer wants. With years of working closely together, a level of trust has developed to enable them come together to form this company. They know each other well and some are neighbours. Four come from Tourmakeady, with the remainder from around Westport town.

There is a great tradition of sheep farming in these areas, with sheep best suited to the poorer uplands and the scarcity of good quality land to produce large quantities of winter feed.

The sheep are adapted to grazing the poor quality vegetation and are an important factor in sustaining these areas. Over the last two years many nights were spent researching the project, with a

study tour of Wales, sponsored by Connaught Gold, 18 months ago. The local Leader company part-funded a feasibility study and they also have received constant help and advice from Teagasc and Bord Bia.

Such is their determination and belief in their product, that the eight farmers invested their own money in buying a van and expensive packaging equipment to get up and running: they have received no grant aid in establishing costs. Since the launch, the group has been very busy with monthly targets and they've exceeded their business plan.

These farmers want to have more control of the product that leaves the farmgate as they know it is high quality and they want the consumer to get better value for money too. Research carried out by Bord Bia indicates that people prefer to buy local produce and this is borne out by the demand since the launch.

### The production system

Lambs are born in March and April and are reared and finished on grass, with some concentrates used if grass supply is scarce. The grass diet is species-rich as the ground varies from extensive lowland to upland grassland and blanket bog, giving a distinctive taste and colour to the meat. There is a high percentage of native blackface mountain in the breeding of the lambs, giving the product extra flavour and texture. All lambs are castrated, as group members are very conscious of taint, and no lambs are finished indoors.

The group are in the Bord Bia quality assurance scheme. The group were recently in the final for the JFC Innovation Awards for farm business, where they were highly commended on their product and progress to date.

### Contacting the group

The group have a website: [lambdirect.com](http://lambdirect.com). Order online/or by phone at 094-9544163. Customers can buy whole lamb, either lowland or hill lamb, half carcass or fully packaged to the highest standards.

They are finalising a barbecue pack of a range of sausages, burgers fillets and chops for the summer season.

“ Customers can buy whole lamb, either lowland or hill lamb, half carcass or fully packaged to the highest standards. Order online/or by phone at 094-9544163

This is a great example of farmers who are caught in a price-cost squeeze doing something about it. It's early days, but it looks as if their initiative will be rewarded.

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# Angus

## the answer on this farm



**Liam Fitzgerald,**  
Beef Specialist,  
Teagasc, Athenry,  
with **Alan Nolan,**  
Teagasc, Ballina

**T**OMMIE Holmes, who farms three miles west of Ballina in Co Mayo, is currently developing a suckler herd of Angus cows to produce Certified Irish Angus Beef. He has 17 Angus-cross cows and buys a similar number of weanlings to produce Certified Angus beef.

Tommie has an off-farm job and chose the Angus breed for their ease of management, especially around calving. He hasn't pulled a calf for the past two years and the calves are quickly onto their feet to suckle after being calved.

The second reason for choosing Angus is the premium available to producers of Angus beef who are members of the Certified Angus Producers Group.

The plan to date has been to have both bullocks and heifers finished off grass before the second winter as Tommie has limited shed space. In the past few years, he has not fully achieved this target, and the result was that a proportion of steers were sold live at the mart where the premium is not obtained.

This year the plan is to finish the heaviest yearlings out of the shed as bulls while the rest of the bull yearlings and the heifers have gone to grass in April. Meal will be introduced to the bulls in late June and they will be housed



“ The base price is fixed weekly in conjunction with the Quality Payment System (QPS) grid. There is an Angus Beef Premium of 10c/kg

in July for finishing on a high concentrate diet.

The heifers will be finished off grass in the autumn, having received about 3kg meal/day in the final six weeks.

In this system, Tommie will get over the problem of limited housing while increasing beef output and getting all progeny finished. As the bull system will need less land, he intends to increase his cow numbers to maintain the stocking rate at the current level of 1.8 LU/ha.

### Herd performance

When I called to Tommie on 30 March last, 15 out of his 17 cows had calved, with 16 calves at foot. Calving started on 2 February, so 88% of his cows had calved within eight weeks. A very good target is to have 80% of the herd calved within 10 weeks. He runs a stock bull with the cows and the bull is joined with the herd on about 20 April.

Good cow condition at calving and mating contributed to satisfactory fertility and there is no big effort required to maintain a calving interval of close to 365 days. Carcaseweights average about 320kg for the steers and 260kg for the heifers at 18 to 20 months of age.

The best of the bulls that were put on an ad lib concentrate diet for finishing in May weighed about 620kg at slaughter



Alan Nolan, Teagasc B&T adviser, Ballina, and Tommie Holmes examine the yearling bulls after turnout.





Yearling Angus bulls at grass.

while the rest that went to grass in April weighed 341kg in mid-March at 12 to 13 months of age.

### Future plans

Tommie hopes to finish all males as bulls if this year's group turn out to be satisfactory and to increase the cow numbers. At present he rears some replacements and buys the remainder. He wants to improve the cow quality by introducing some Limousin cross replacements and is aiming to get cows with better milking ability.

### Market for certified Angus beef

Certified Angus beef is a niche market that has been developed since it was launched in 2000.

As such, the supply is controlled by the capacity of premium markets, within the overall beef market, to take the production level while maintaining a premium price.

Angus cattle, bred and reared under the conditions of the scheme, are slaughtered in the AIBP plants at Waterford and Bandon and in the Kepak plants at Clonee, Athleague and Watergrasshill.

The Tesco chain, which is supplied by AIBP, is the biggest outlet and requires 300 to 340 cattle per week.

Certified Irish Angus beef is also sold in the Aldi supermarket chain and in a number of independent butchers and restaurants. Pingo Doce in Portugal is the main export outlet.

The product can be recognised in stores by the approved certification logo on the label.

Producers must be members of the Bord Bia Beef Quality Assurance Scheme.

### Price premium

- The base price is fixed weekly in conjunction with the Quality Payment System (QPS) grid.
- There is an Angus Beef Premium of 10c/kg.
- The Quality Assurance Bonus of 6c/kg is paid on in-spec carcasses.
- The Angus Premium and Quality Assurance Premium are paid on carcass grades on the grid, i.e. from U+ to O= in conformation and 2+ to 4+ (inclusive) on fat score. It excludes O- and P and fat score 5.
- An additional premium of 5c/kg is added to the Angus Premium for out-of-season production, the dates of which are agreed in advance.
- A deduction of €6 per animal is made at slaughter to cover administration and promotion costs.

## Certified Angus: terms and conditions

Charles Smith is administration officer of the Certified Irish Angus Beef scheme on behalf of the Irish Aberdeen Angus Producers Group.

He outlined the following terms and conditions:

- All animals must be sired by a purebred registered Angus bull or AI, and this must be shown on identify cards.
- All animals must be polled.
- Animals must be a minimum of 70 days in the final producer's herds.
- Animals must be booked with the producer group prior to slaughter.
- Producers must be a member of the Bord Bia Beef Quality Assurance Scheme.

Charles said that the two out-of-season periods are generally from the second week of May to early July and from the second week of November to about 15 January. Dairy farmers will supply the bulk of the product in spring while beef farmers supply the late summer/autumn market.

Young bulls can fit in well to the scarce period in early summer and both steers and heifers can be finished to supply the Christmas trade. The weight range for steers is 230kg to 400kg carcass and for heifers 220kg to 400kg carcass; both must be under 30 months of age.

The bull carcass weight range is similar to steers but they must be under 24 months at slaughter. Charles Smith said they can handle up to 40% of the male slaughterings as bulls.



Charles Smith

dairying

# Students are hands-on

James Ryan profiles the young dairy group who are managing the Herd 1250 project at Kildalton College

**James Ryan,**  
Kildalton College

“I’m getting to use the experience I gained in New Zealand on the Herd 1250 project in Kildalton,” said Bill Keane from Co Waterford, one of 18 students studying for the Advanced Certificate in Dairy Herd Management at Kildalton and one of the eight who spent four months on placement in New Zealand as part of the work experience module of the course.

“Grass is king in New Zealand and all decisions relate to farm cover,” he said. “Keeping average farm cover at the correct target and making good use of the grass wedge, coupled with a compact calving season, are top priorities for New Zealand dairy farmers.

“Pasture management in New Zealand is one of the most important parts of a successful farm. Each farmer knows his average growth rates and, using this information, he can predict times of the year when grass will grow at its peak and make decisions accordingly.

“Rotation length is the driving factor to pasture control and varies from around 60 days at the start of calving to a much quicker 18 to 20 days during the



**Bill Keane, Stradbally, Co Waterford, with New Zealand host farmer Steve Schmack of Rakaia, Christchurch.**



**Denis Cody, Templemore, Co Tipperary, looking to expand the 150-cow herd which he runs in partnership with his parents.**

main growing season.” The young Waterford man is milking 135 cows in partnership with his parents in Stradbally. Bill intends to put into practice the principles of grassland management he acquired in New Zealand. “I am expanding the herd and hope to be milking 250 cows in the next five years,” he said.

The 1250 project is one of the elements of the Advanced Certificate in Dairy Herd Management in Kildalton this year. The herd consists of 30 cows, six replacements and six heifer calves on a milking platform of 12 hectares. Winter feed must also be taken off this platform.

The dairy students who decide the day-to-day running of the project meet every Monday morning to review the past week and make decisions for the coming seven days.

John Mooney from Co Laois is secretary of the project. “We’re delighted to be involved in the project and the experience and confidence that it generates can only drive us forward to be better dairy and grassland farmers,” he said.

“I completed my work experience at Kevin Flynn’s farm in Roseinallis, Co Laois, on a high production herd and I feel I’m building on that by managing this herd in Kildalton.

“We’re working together to operate a low cost herd. We have a budget of €100 variable costs per cow up to the end of May and we are completely focused on keeping costs down to meet this ambitious target. I must say that it’s a real eye opener.”

Denis Cody, Templemore, Co Tipper-

ary, completed his work experience on the farms of Kevin Cummins, Westmeath and William Kingston, Skibbereen. Denis is looking to expand the 150-cow herd which he runs in partnership with his parents.

“First rotation management and early turnout are key to driving high output per hectare,” said Denis. “This, in conjunction with a crossbred herd, are the key factors driving increased output of milk solids and overall net profit. We are using these key drivers on the Herd 1250 project and I now have the confidence to adapt these technologies on my home farm.”

Johnny Cronin from Midleton manages a herd of 240 cows with his parents. Having spent four months in New Zealand on work placement, what did Johnny learn from his time with the Kiwi farmers?

“Grass measuring is key to proper grassland management, and once you are able to measure grass, you can then utilise it fully,” he said. “I now have the confidence to eyeball grass and calculate average farm cover. It makes the decisions for me, and if I have enough grass, I let my cows out. It makes dairy farming easy!”

Austin Kirwan, Banagher, Co Offaly, and John Deevy, Ballyraggett, Co Kilkenny, are also part of the Kildalton 1250 Discussion group which was formed to participate in the Dairy Efficiency Programme. John, who completed his placement in Kilkenny on the farm of Stephen Campion, and was dairy stu-

# in Kildalton dairy group



James Ryan (front left) with Kildalton dairy students John Byrne, James Barry, Padraig Ryan, Johnny Cronin, Ricky Oliver, Tomas Coonan, Edward Hughes, John Mooney, Kevin Croke, Bill Keane, Pat Loughman, Tomas Lyng, Chris Tuffy and Austin Kirwan.

dent of the year in 2009, recognises the importance of discussion groups.

“The group will meet on the last Wednesday of every month on one of our farms and I’m looking forward to the group session on my farm in May,” he said. “I will have my physical planner completed and, hopefully, we will get a good discussion on my short and long-term plans.”

Austin is part of the management team that runs the Herd 1250 project. “We are currently milking 100 cows at home, and managing the 1250 herd here gives us the confidence to use these technologies on the home herd. We are constantly making decisions, from how much grass to allocate the cows, to practising on-off grazing and sticking to the rotational planner.

“Performance is the driving force behind the Herd 1250. We have just come through the worst spring in our lifetimes but now we are back on track. Cows have started the second rotation and are going into covers of 1,000kg DM/ha.

“ The 1250 project is one of the elements of the Advanced Certificate in Dairy Herd Management in Kildalton this year

Overall farm cover is 772kg DM/ha, with no meals. We have closed for silage and this has pushed demand to 69kg DM/ha/day on a stocking rate of 4.3 LU/ha.

“Breeding started on 12 April and we have picked a team of four bulls — SOK, TIO, SKV and RVW. Milk yield is currently 23kg at 4.1% butterfat and 3.2% protein (20 April figures). Cows were out by the end of January and we were allocating them an allowance of 6kg grass DM, 3kg meal and 5kg maize.

“We made our first big mistake by giving the cows too much maize at night; — all the cows did was lie down in the field. We soon managed to have the cows going out with an edge on their appetite and hitting residuals of 50kg. It was one of the biggest lessons that I learned immediately and, as a group, we are all now confident of never repeating this and using top quality feed in the form of grass fully.

“We meet with an advisory group every few weeks which is very beneficial. We need re-assurance and guidance and it fills you with confidence to know that you are managing the project in the correct way.”

Edward Hughes from Johnstown, Co Kilkenny, sees that advantage of this project. “We have done all the setting up of this project from the fencing at the start to the grass allocation and daily management now. At home we run a herd of 62 cows but I intend to expand and, given the experience I have gathered on this project, I am looking forward to putting all this into practice.

This, in conjunction with my placement with Michael Power in Urlingford, means that I am ready to seriously push forward in grass and milk production.”

Declan O’Meara from Portroe, Co Tipperary, was not a student in Kildalton in first year but joined the Advanced Certificate in Dairy Herd Management last September.

“I completed my placement in New Zealand and am now applying these technologies to my home herd of 150 cows,” he said.

“I have trained as a DIY AI operator on the course and can use this skill back home too. When we go on our weekly visits to top dairy farmers, I try to pick up one small piece of information that I can use. I know I’ll need support when I return home so the lads staying together as a discussion group is great and I’m looking forward to reaping the benefits of this.”

Tomas Coonan from Muckalee, Co Kilkenny, intends to take over management of the home farm immediately on completion of the course.

“I am currently milking 60 cows but, after just building a new milking parlour, I am ready to expand quickly. I’m going to use AI on the whole herd starting this year and push expansion based on high EBI bulls picked from the active bull list.

“As a group, we all have access to our herd EBI from ICBF and I can see the benefits of using this information to add value to my herd and, ultimately, leave me with more net profit.”

# BVD

## A new approach to control



**John Mee,**  
Teagasc,  
Moorepark

**B**VD was ranked the most important infectious disease by dairy and beef farmers in a recent survey of ICBF clients. The survey was carried out by Animal Health Ireland (AHI) to prioritise diseases/conditions requiring action to improve our national animal health status.

### AHI

Animal Health Ireland is a partnership approach to animal health that brings together livestock producers, processors, animal health advisers and the Government. The main aims of the organisation are, through superior animal health and welfare, to improve overall profitability for individual farmers and the agri-food industry.

AHI will not become involved in the direct provision of services at farm level, which will continue to be delivered by veterinarians, Teagasc advisers and others, but the organisation will play an important role in co-ordinating the efforts of the various service providers.

AHI has now embarked on the process of bringing together Technical Working Groups (TWG), consisting of experienced practitioners and other experts. Teagasc staff are playing a key role in supporting this national initiative through active participation in all of these TWG.

Their task will be to establish nationally-agreed protocols for the investigation, management and monitoring of each of the prioritised diseases/conditions. These protocols will be collated in the form of a series of technical notes, the first of which, on BVD, has been published recently ([www.animal-healthireland.ie](http://www.animal-healthireland.ie)).

### BVD — now is the time to act

We are now facing into a critical time of the year for BVD disease spread and control in spring-calving herds. If breeding females become infected in the first four months of pregnancy, the result can be embryo mortality or persistent infection (PI) of the foetus.



## What should I do about

The four key steps to addressing BVD:

- Have a plan
- Investigate your herd status
- Implement a control programme
- Monitor your status

### Have a plan

The starting point in addressing BVD is to talk with your vet about what you want to do in your herd. For some farmers this will be driven by the problems they are having with poor fertility, calf health or an outbreak of clinical BVD, called Mucosal Disease.

For others it might be motivated by just wanting to know their herd status or to become BVD-free.

### Investigate your herd status

Most farmers don't know their herd BVD status, so you're not alone. With the recent introduction of cheaper, more convenient and better diagnostic tests, you can now establish this quite easily. The starting point is to screen your milking herd by collecting a bulk milk sample and to screen your young stock or beef stock by collecting blood samples. This

will allow you and your vet to classify your herd status as unexposed or exposed, with low to high risk.

Where a high risk is identified, it is recommended to individually test all animals in the herd to identify virus-positive cattle using blood, milk or ear notch samples. As foetuses in pregnant cows can't be tested, they need to be sampled once they are born.

### Implement a control programme

Now that you know your herd status and virus-positive cattle have been identified, a control programme should be developed with your vet. Three simple things need to be done. Firstly, immediately cull any PIs detected. Secondly, reduce the risk of BVD re-introduction to your herd through good biosecurity. Close your herd. If this isn't possible, test incoming cattle for virus before movement. If this isn't possible, quarantine them on arrival and test them virus-negative before mixing with your own stock. Remember to also test the calves from purchased stock.

Improve your boundaries to prevent nose-to-nose contact and break-outs/break-ins. And last, but not least, increase the immunity of your cattle to BVD. This can be done through vaccination.

### Vaccination

The ideal time to vaccinate your stock is before breeding. Now is a good time to discuss the pros and cons of the three vaccines that offer foetal protection

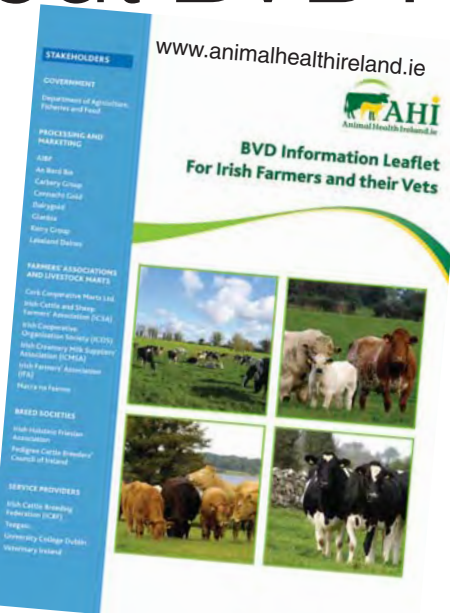
## What is a PI?

A persistently infected (PI) animal is one which was infected in the first four months of pregnancy. PIs may be normal at birth and thereafter but shed virus at high levels for life. Because of this, detection and culling of PIs is the most important aspect of BVD control.



BVD can be carried in bovine saliva/ faeces, on clothing and equipment. To help reduce this spread, have well maintained footbaths and ensure that all visitors use them.

# out BVD?



“ Surveys of dairy farmers show that only 25% of herds are closed; 90% of farmers do not test bought-in cattle, other than for TB and brucellosis, and only 20% of farmers quarantine purchased stock

(Bovidec, Bovilis BVD and Pregsure BVD) with your vet. Unfortunately, many farmers go straight to vaccination to solve a BVD problem without going through the two steps outlined above — planning and investigating. This can lead to poor results, which are sometimes blamed on the vaccine not working, though vaccine breakdowns do occasionally occur.

And don't forget the bull; he needs a 'shot' too, whether or not he's vasectomised.

### Monitor your status

The only way to know if the money you spent on investigating and controlling this disease has paid off is by monitoring your herd BVD status and your herd's animal ongoing health performance. This is especially important in open herds where cattle are regularly bought-

in and not tested or quarantined.

Teagasc surveys of dairy farmers show that only 25% of herds are closed; 90% of farmers do not test bought-in cattle, other than for TB and brucellosis, and only 20% of farmers quarantine purchased stock. Monitor new stock coming into the herd, whether they are home-grown replacements or bought-in stock, by testing for virus. New-born calves can be tested using either blood or ear notch samples. Repeat the herd screening tests outlined above at least annually. And keep an eye out for possible signs of clinical disease, e.g. late repeats, more abortions than normal, birth defects or an increase in scour and pneumonia.

BVD is obviously not the only cause of these common animal health problems, but by having a good BVD control programme up and running in your herd, you can rule it out.



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# Use the summer grass wedge

Over 6,000 dairy farmers will complete grassland wedges for their farms this year. It is one of the requirements under the Dairy Efficiency Programme for discussion groups



**Pat Clarke,**  
Teagasc,  
Athenry

A wedge is a visual picture of the grass situation on your farm, showing the amount of grass in each paddock in a graph format and what cover you need to be grazing for the week. Why complete a wedge? Research has shown that 0.5 gallons/cow/day (two litres) can be gained on most dairy farms by improving the quality of grass that the cow grazes per day during summer. Grass has a tendency to produce stem from April to June which lowers overall grass digestible. The less stem the cow grazes and the more leaf, the higher the production per cow, regardless of stocking rate.

### Three grazing plans

Teagasc promote the use of three methods of managing grass during the grazing season. The summer wedge is the tool to use for the next three months:

- Mid-April to 1 August — use the Summer Grass Wedge.
- 1 August to housing — use the Autumn Closing Planner
- February to mid-April — use the Spring Rotation Planner.

### How to complete a wedge

The wedge should be completed on a weekly basis. To complete a wedge, you need to:

- Have paddocks numbered and, ideally, of equal size. This may involve grouping small paddocks or splitting larger ones.

- Walk the farm and estimate cover on each paddock.
- Each paddock is represented by a solid line on the page, starting with the highest cover and finishing with the lowest. This is your wedge. It can be completed manually or on computer.
- Establish the grass cover you should be leaving behind after the paddock is grazed (known as residual cover). Grazed out cover should range from 0 to 100kg/ha.
- Establish the ideal pre-grazing cover (what cows should be grazing) for your farm from the formula shown in *Table 1*.
- Draw the target line on the graph over the wedge, starting with your grazing out cover to the ideal pre-grazing cover. The wedge is now complete.

Where all the paddocks reach the target line, then this is the perfect wedge (*Figure 1*). In this scenario, cows are likely to be grazing ideal quality grass for the next week, with no shortage or deficit looming.

In reality, the wedge will vary from week to week. It needs to be interpreted each week, taking into account the likely changes that will occur over the next week.

### Farmer experience

One farmer who uses the grass wedge is Henry Walsh, Oranmore, Co Galway. Henry operates a spring calving herd of 155 cows, stocked at 2.9 cows per hectare on the milking platform.

Calving starts on 10 February. Heifers are reared on an outfarm and additional silage for the cows is produced on this farm.

Bull calves are sold at birth. Last year, 1,150kg milk solids/ha were produced from the milking platform.

» Page 24



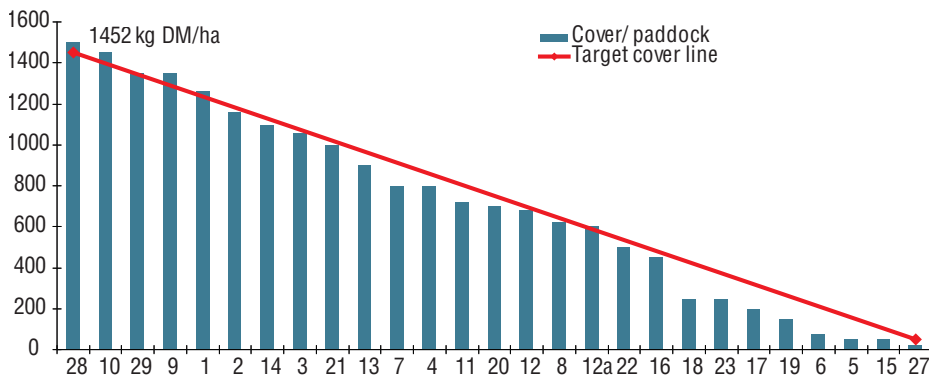
**Table 1** | Establishing ideal pre-grazing cover

Stocking Rate (cows/ha)	Allowance (kg DM/cow/day)	Rotation Length (days)	Residual (kg/DM)	Ideal pre-grazing cover (kg DM/ha)
a	b	c	d	(a x b x c - d)
4.12	17	20	50	1,452

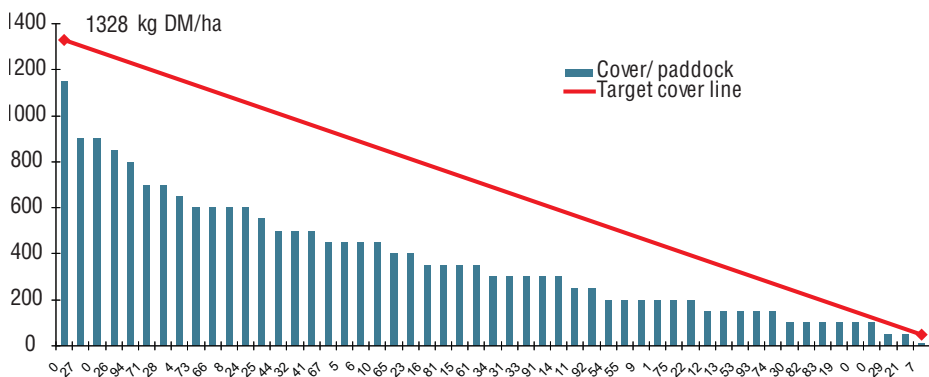


Henry Walsh (right), Oranmore, Co Galway, discusses his grass wedge with Teagasc adviser Tom Murphy.

**Figure 1: Farm wedge where all paddocks match the target line**



**Figure 2: Farmer wedge, May 2009, showing a grass deficit**



Research has shown that 0.5 gallons/cow/day (two litres) can be gained on most dairy farms by improving the quality of grass that the cow grazes per day during summer

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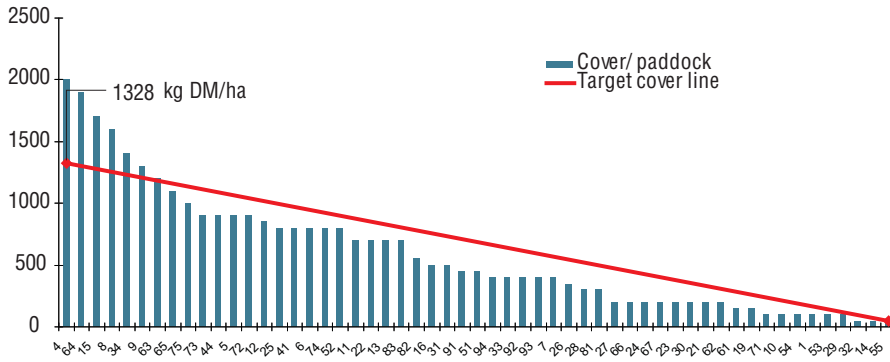
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**Figure 3: Farmer wedge, July 2009, showing a grass surplus**



During the main grazing season, Henry operates close to a 21-day rotation, with 27 units N applied after each grazing. Surplus grass is removed as baled silage from the milking block.

Every Monday, after breakfast, Henry walks the farm and completes a graph cover. He inputs the data onto the computer and creates his wedge for that week. This is the base for grassland decisions for the week. Measurement is predominantly done by eyeballing; the clippers is used occasionally to keep his eye in touch. Henry is also a member of a discussion group. They meet once a

month, with the main emphasis on grassland measurement and management. Henry aims to graze covers of about 1,400kg DM/ha and remove surpluses over the whole season. *Figures 2 (previous page) and 3* show two wedges from Henry's farm last year.

The first is from May when the weather was wet and cold. The second was from mid-summer when conditions had improved. At a glance, there appears to be a lot of paddocks in the wedge — usually three to four are grazed together as one paddock. For measurement, Henry keeps them separate, but

they could be grouped together in the wedge to reduce the number of lines.

The wedge in Figure 2 was taken during May 2009 when there was a clear deficit of grass on the farm. "My decision was to introduce 2kg ration for the week. This was not sufficient feed to make up the deficit, but I anticipated higher growth rates for the next seven days. Demand was 54 at the time; growth rate was due to exceed this," recalled Henry from notes in his grass diary.

According to Henry, the big benefit of completing a wedge each week is that you can see the result of your decisions the next week. Depending on how the situation had changed, meal could be eliminated or increased. Clearly, there is surplus grass in his mid-summer wedge (*Figure 3*) for 2009. That week, a number of the high covers (equivalent to 10% of the grazing) were cut for baled silage.

Henry said: "These bales provide valuable feed again for milking cows. I wish they were available in March this year." This action corrected the wedge and had the paddocks back in the grazing system immediately.

Through his local Teagasc adviser, Tom Murphy, Henry also submits weekly grass data, milk details and his management notes to the local newspaper.

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A wedge is a visual picture of the grass situation on your farm, showing the amount of grass in each paddock in a graph format and what cover you need to be grazing for the week (see *Figure 3*, above left). Harvesting grass (see above) is the most accurate way to judge grass covers for feeding cattle.







# No need to separate the wool from

Eugene McCartan comes from a celebrated Gaelic football family. Now he is gaining his own reputation, with a business, including trees and sheep, on the banks of the river Robe in Mayo. **Noel Kennedy**, Teagasc Forestry Development Officer, reports

**A** highly skilled sheep farmer, Eugene McCartan has a passion for trees — planting, nurturing, harvesting and even talking about them — it's in the blood. His family have been tree planting, timber harvesting and milling wood in Hollymount, between Claremorris and Ballinrobe, since the 1940s.

Though Eugene sees himself first and foremost as a sheep producer, he has realised, like many farmers, that with a young family to provide for, he needed to look beyond his 250 ewe sheep enterprise to generate income.

Eugene's late father, also Eugene, maintained that their family was born with 'sawdust in their veins' and it was inevitable that trees and timber would feature prominently in Eugene's thinking. Over the past nine years he has invested substantially in his land through new woodland planting, management of the beautiful older woodlands and the harvesting and processing of forest thinnings. Eugene said he has found that the income and work profiles of the two enterprises complement each other.

## Woodland expansion

The farm of 110 hectares includes 20 hectares of mature beech, ash, oak, sycamore and spruce, and Eugene has been involved in woodland management



since the 1980s. In 2001 he planted 13 hectares of poor bog with sitka spruce and lodgepole pine. The following year, he planted three hectares of ash and improved six hectares of existing broadleaf woodland under the Woodland Improvement Scheme.

Later he planted 2.5 hectares of new

native woodland and improved seven hectares of older native woodland. This time, Eugene organised most of the work himself rather than using a contractor and was assisted by his registered forester, Tom Staunton of Western Forestry Co-op. The payments under the various schemes that Eugene has availed of over the years have been key to his income.

In 2009 Eugene took on his biggest forestry challenge by himself, planting 16 hectares along the Robe river near Hollymount village. As a REPS farmer, he qualified to plant under the Forest Environment Protection Scheme (FEPS), which compensated him for the loss of REPS on the planted area. FEPS provided an opportunity to design a woodland that will contribute more to the landscape, biodiversity and promotion of native species, as well as protecting the water resource of the Robe.

By organising most of the development works himself, while availing of professional advice, Eugene feels he was in more control of the cost and timing of the project. He also said he felt he could

## Eugene McCartan | Farming and forestry stats

Total farm size	110 hectares
Area farmed	55 hectares
Woodland	55 hectares
<b>Farming enterprise</b>	Sheep
Flock size	250
Breed	Texel and Suffolk crosses
<b>Woodland enterprise</b>	
Mature woodland	20 hectares
New planting — 2001 to date*	35 hectares — 10 ha broadleaves; 25 ha conifers
Christmas trees	Planting 500 trees per year for next 7 years
Timber processing	200 tonnes/annum posts, planing, firewood
Woodcock shoots	1 to 2 per year

\*A further 16 hectares are due to be planted by end 2010

# om the trees



The McCartan family — farming sheep and trees for a secure future.



Leaving their mark — Noel Kennedy, Teagasc forestry development officer and Eugene identify broadleaf thinnings.

be sure of the quality of work. He thinks that more farmers should do some of the work themselves but only if they are prepared to commit the time and effort and to learn about trees as a crop.

### Managing for a sustainable future

Farm woodlands must be actively managed to achieve their full potential and develop into a sustainable resource. Eugene has worked hard to ensure that this happens.

Thanks to active management and timely thinning, the older woodlands are healthy and vigorous, and provide a steady supply of timber to his farm-based sawmilling business.

With older woodlands ranging from majestic oak, ash and beech to small blocks of sitka spruce and alder/birch native woodlands, Eugene is happy to acknowledge that the financial assistance provided by the Woodland Improvement and Native Woodland Schemes have been a crucial support to their management.

» Next page



Thinning broadleaves — improves the final crop, provides income from the thinnings and boosts biodiversity.

Eleven hectares of woodland are currently being managed under the Woodland Improvement Scheme in accordance with the principles of Continuous Cover Forest Management. CCF is the management and transformation of regular plantation forestry into permanent, productive forest designed to balance commercial production with landscape, environmental and quality benefits; i.e. it eliminates the need to clearfell.

Highly enthusiastic about Continuous Cover forestry, Eugene has joined Pro-Silva Ireland, which advocates this sustainable management approach which is steadily gaining interest in the country.

Eugene feels strongly that farmers need to 'up their game' when it comes to managing their woodlands if they want to maximise their returns and make the most of their woodlands. In particular, they need to develop an income from thinnings before the premia run out, and manage their crop to provide a more sustainable longer term income. He strongly supports the training and upskilling of farm foresters with an emphasis on CCF management.

To reflect this, Eugene has developed a close working relationship with Teagasc and hosted part of a Teagasc/Forest Service National Forestry establishment demonstration in 2008. Last year, he also demonstrated harvesting and timber processing equipment at other Teagasc national forestry events in Mayo and Roscommon.

### From seed to sawdust

The woodland cycle continues on Eugene's farm at his sawmill. Using hardwood and softwood timber felled on the farm, and some supplied from local farmers, the heart of this enterprise is a Woodmizer sawbench which produces planking and square sawn posts for a variety of uses. There is also a lot of work for his post-peeler which produces fencing posts and strainers, mainly spruce thinnings, to meet local demand.

Firewood is a rapidly expanding and profitable market for Eugene. With increasing oil, gas and coal costs, the demand for quality seasoned firewood is growing. By processing his own timber and selling from the yard to a loyal customer base, Eugene is adding value to a 'home-grown' product.

### Seeing the wood from the trees

As well as premia and timber sales, Eugene lists other benefits from his woodland activities:

- **Biodiversity** — The woodlands are home to a wide range of birds, mammals and insects where they find food, shelter, nesting sites and safety. Among the rarer bird and mammal species present are barn owls, Irish jays, woodcock, lesser horseshoe bats and a peregrine falcon. Bluebells and other woodland plants are colonising the forest floor in

### Ambitious goals — Eugene McCartan



response to increased light following thinning.

- **Shelter** — The developing younger woodlands are complementing the shelter provided by the older trees — an important factor in lamb survival rates.

- **Wood fuel** — Eugene's home is 100% heated by firewood, saving over €2,500 annually.

- **Shoots** — Part of the woodland is rented each year to a shooting syndicate for woodcock shoots.

- **Carbon sequestration** — Trees trap CO<sub>2</sub> and store carbon as timber while releasing oxygen. Eugene is hopeful that this woodland function will be rewarded by some sort of 'green' payment in the future.

### What the future holds

Eugene McCartan has a vision for his business and is determined that sheep will play a significant part. Recent reductions to 250 Texel and Suffolk cross ewes reflects not just a decrease in available grazing land, but also the start of his plan to establish a more pure-bred quality flock.

With more planting in the pipeline,

an eventual woodland cover of 70% is envisaged at which Eugene believes the right economic and practical balance between his sheep and woodland enterprises will have been achieved.

Having already facilitated the holding of chainsaw courses on the farm for casual employees and neighbours, he is looking forward to hosting more training events.

A woodland walk around the farm is being constructed and, in the longer term, could form part of an eco-tourism enterprise.

As if that isn't enough, Eugene was recently nominated to join the Stakeholder Partnership Team of the Teagasc Forestry Development Unit, where his ideas and suggestions can help shape the unit's effectiveness and business development.

Eugene McCartan has set himself ambitious goals: to farm top quality sheep, manage top quality woodland, enhance the farm environment and, above all, to secure the future of his family. With his infectious enthusiasm, knowledge, skills and ambition, he is on a mission to succeed.

# Home grown vegetables are best — and cheapest!

The 'vegetable plot', once part and parcel of every farm and garden, is making a comeback



**Stephen Alexander,**  
Teagasc,  
Co Dublin

**T**HE memories of freshly picked garden peas and baby carrots, smothered in butter on the dinner plate, are still fresh in my mind. Dinners of yesteryear. With the advent of affluence and convenience foods, people got out of the habit of growing their own — until now. If there's anything good to come out of this recession it has to be the renewed interest in growing your own.

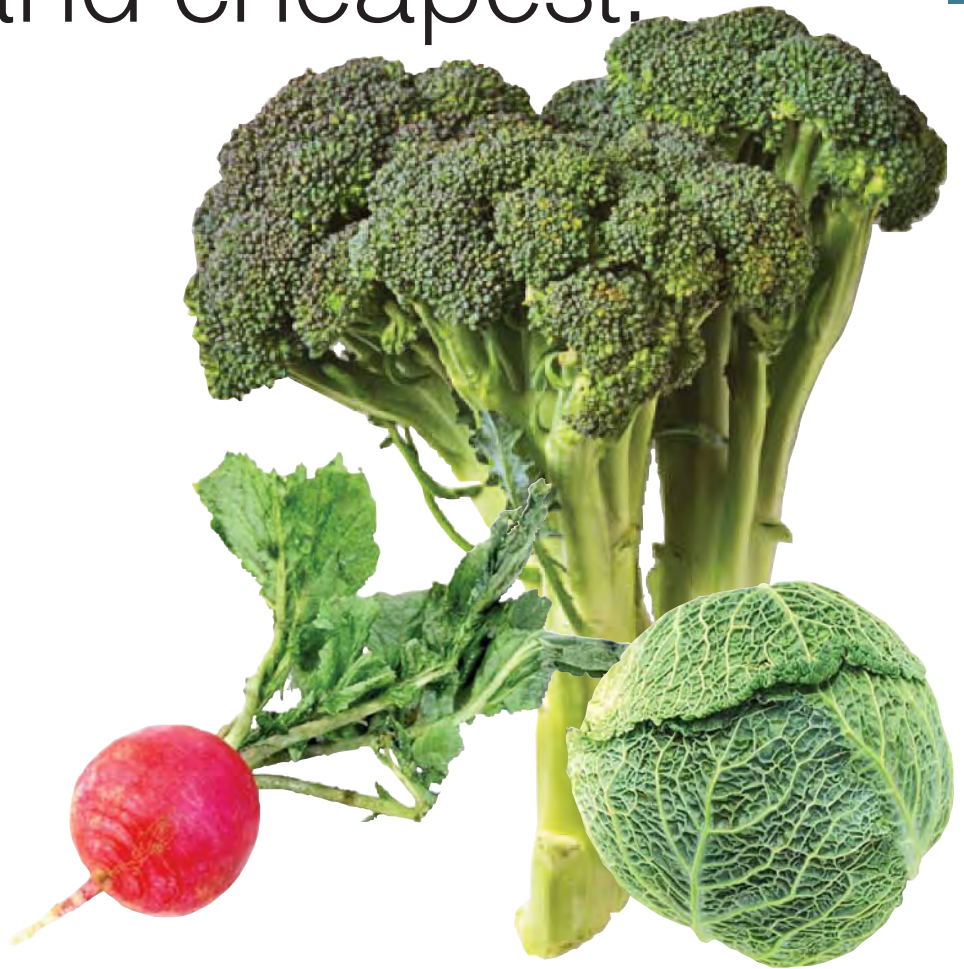
Growing vegetables can be a satisfying and productive hobby and you can't get fresher than home-grown food straight from the garden. It's easy to succeed, provided you follow a few basic ground rules.

To help you get started, Teagasc have produced *A Guide to Vegetable Growing*, a handbook full of helpful tips and advice. It will encourage you to get your soil into good shape, remove weeds regularly and take precautions against pests and diseases.

Vegetables are usually grown from seed; either direct drilled, where they are to mature, or sown into a container to be transplanted out at a later date.

You can raise your own or buy in transplants from a garden centre or nursery. The latter option might be preferable if you are a beginner. You have

“ Broad beans, peas, cabbage, sprouts, cauliflowers, carrots and lettuce are some of the crops that can be sown or planted now



the choice of growing your crops on the flat, on raised beds or in drills.

May is a busy month for the vegetable grower as seeds need to be sown and plants put out. Broad beans, peas, cabbage, sprouts, cauliflowers, carrots and lettuce are just some of the crops that can be sown or planted now. Wait until next month before sowing French beans or sweet corn.

Once vegetables appear above ground, or after transplanting, they are fair game for a whole host of potential enemies. But don't despair; take a few simple precautions and you can avoid most problems.

I am not a great advocate of using chemicals in the garden but the use of some well-timed slug pellets will save a lot of grief; slugs and snails are partial to a wide range of vegetables.

The other tip is to buy some fleece, a light woven plant cover, and cover all your vegetables with it. This can be kept on until close to harvest and will ward off a variety of pests including pigeons, carrot fly, cabbage root fly, green fly and caterpillars. It's light in weight and allows

light through, so it won't harm the growth of your crop. If you are careful not to damage it, you can use your fleece a second time round.

Unless the soil is very fertile, it is advisable to apply some general purpose fertilizer, raked in just before sowing or planting. Make sure to water vegetables during dry weather, but especially when they are small; it's important to get them properly established. The inevitable weeds are best removed when they're young and before they compete with the crop. If you have followed all my instructions and, with a little bit of luck we now come to the best part — the harvest!

There is enormous satisfaction and no little pride to be had in picking your very first crop. The problem of gluts can be overcome by careful planning, freezing the excess and becoming popular with your neighbours.

Once bitten by the 'growing bug', you'll find it hard to give it up.

• If you would like a free copy, please contact Stephen Alexander at Teagasc, Kinsealy (01 8459048).

# Fungicides fundamental



**Michael Hennessy,**  
Teagasc  
Oak Park

**M**ANY farmers toyed with the idea of leaving land uncropped for 2010. The fine spell in the middle of April was too tempting for almost all growers and the amount of uncropped land is minimal. It's now up to all growers to get the best return from these sown crops.

Fungicides play a major role in profitability and an average return of at least two to two and half times the cost of the fungicide can be expected. I caught up with a prominent tillage farmer and his adviser in the south east to get their views and plans for fungicide inputs for the season.

Tom Sheppard is growing a range of winter and spring crops on his farm near Tullow this year. Speaking to Tom and his Teagasc adviser, Ciaran Hickey, this spring, Tom outlined the challenge ahead. "The potential returns from winter and spring cereals are tight again this year and the worry about changing disease populations will make this year a very testing one," said Tom.

Tom and Ciaran work closely through the year to manage a programme which is both affordable and delivers optimum yields.

## Research findings

Teagasc researchers found a new strain of septoria in 2008 which had reduced sensitivity in laboratory tests to prothioconazole (Proline) and, to a lesser extent, epoxiconazole (e.g. Opus Max). More laboratory tests and field trials in 2009 confirmed that this strain was increasing (at some sites) in frequency.

Field trials information is limited due to the recent development of the new strains. However, initial results in-



Planning your barley fungicide strategy should start early so that products can be purchased on time and at a lower cost



Ciaran Hickey and farmers Tom and Liam Sheppard.

dicating that field performance of prothioconazole and epoxiconazole appear to have been affected where this new septoria strain is prevalent in terms of immediate disease control and persistence of disease control.

The new strain of septoria is sensitive to tebuconazole (e.g. Folicur) and metconazole (Caramba) so these actives may have a role in reducing the selection pressure as well as ensuring good levels of disease control. Generally speaking, metconazole is seen as a stronger septoria product than tebuconazole. Teagasc believes that high levels of disease control can still be achieved with sequences of different triazoles applied with a suitable mixer partner (e.g. Bravo or boscalid) or mixes of two different triazoles applied as pre-formulated products (e.g. Gleam or Prosaro). Spray timing and intervals between timings will be critical to ensuring maximum efficacy from products selected.

Table 1 highlights the best way to protect yields and minimise the build-up of insensitive strains of septoria through the season in your crops.

## Wheat at farm level

Teagasc adviser Ciaran Hickey believes control of septoria in the Carlow area was relatively good last year but the re-

search findings from Oak Park must be taken very seriously at an individual grower level this year.

Tom Sheppard, in consultation with Ciaran, has planned out a strategy for his wheat which, they believe, will deliver high yields. Tom explains: "Einstein (not the cleanest variety) has performed well for me over the last few years and I have planted it again this year hoping for similar results. The crop is sown after oats and I plan to use Opus Star 1.5 L/ha plus Bravo 1.0 L/ha as the first fungicide. All going well I will follow with Venture Extra 1.0 L/ha plus Rubric 0.4 L/ha and Bravo 1.0 L/ha as the flag leaf application. Rubric, a generic Opus, worked well for me last year and I have no problem adding it to the mix again this year. However, I hope Boscolid, contained within Venture, will add additional greening potential which should convert into yield.

"Finally, I plan to use Gleam 1.5 L/ha to 2.0 L/ha as my final ear wash spray. This mix of Opus and Caramba should contain septoria populations and it worked well for me last year."

Ciaran said that this programme may change depending on the timings and the septoria pressure present. Tom was quick to point out that the programme should come in under budget at some-



Septoria remains the key challenge in wheat.

**Table 1** | Base suggested fungicide programme 2010 for septoria control in wheat

Spray timing	Suggested chemical strategy for septoria control	Examples of product which can be used at these timings
T1	Triazole (Group 1) + Bravo/boscalid	Opus Max/Proline + Bravo or Venture Extra
T2	Triazole (Group 1 ± Group 2) + Bravo/boscalid	Opus Max/Proline/Gleam/Prosaro + Bravo or Venture Extra
T3	Triazole (Group 1 + Group 2) or Triazole Group 2	Gleam/Prosaro/Folicur/Caramba

Where Venture Extra is used at a timing, chlorothalonil (Bravo) may be omitted. Additional actives may be needed for other diseases

Triazoles: Group 1: Epoxiconazole; Prothioconazole  
Group 2: Tebuconazole; Metconazole

Triazole grouping is based on sensitivity to various septoria strains

where between €50 and €55 per acre.

### Spring barley

Planning your barley fungicide strategy should start early so that products can be purchased on time and at a lower cost. Generally, two fungicide applications are needed to keep disease at bay. Varieties with good disease resistance, such as Quench or Magaly, can lend themselves to a low fungicide strategy; e.g. reduced rates at both timings. Keep a close eye on Azalea and Cocktail for net blotch at an early stage.

The first fungicide can be applied from mid to late tillering but should be applied before first node detectable stage.

Half-rates are generally sufficient. Products like Proline (prothioconazole), Punch C, Lyric, Stereo, etc, will all do an excellent job at this stage. Where rhyncho is a problem early, use Proline at a higher rate (50% to 60% rate of prothioconazole), as it has the best activity of the products mentioned.

Likewise, where net blotch is a problem, use higher rates of Proline. The addition of strobilurins (Modem, Galileo, etc) may also be justified.

The second fungicide application (T2) will coincide with the flag leaf emerged to awns visible. Triazoles form

the cornerstone of disease control at the T2 timing with products containing prothioconazole featuring strongly. Other alternatives can be used such as Venture Extra, Allegro Plus or triazoles plus strobilurin mixes such as Amistar Opti, Credo, etc.

Tom Sheppard planted Snakebite again this year. "I delivered three tonnes per acre from Snakebite last year but disease crept in towards the middle of the season," he said.

Ciaran Hickey explained that the crop stood extremely well up to harvest but the variety needed a close eye for rhyncho through the year.

Tom pointed out that his fungicide plan for Snakebite will be based around prothioconazole this year as he is concerned about rhyncho.

Tom said: "I have already ordered Proline. I will apply 0.3 to 0.4 L/ha before the first node and follow with Fandango at 1.0 to 1.25 L/ha plus Bravo 1.0L/ha just as the awns are peeping."

Tom admits that this programme is not cheap (somewhere around €30/ac) but he will use a cheaper (generic) based programme on the cleaner variety Quench.

### Oats

Winter and spring oat disease control is

quite similar as the same varieties are used at both timings.

All varieties are very susceptible to mildew and this disease predominates every season. Other diseases such as crown rust (mostly in southern counties) and red leather leaf can be a problem in many crops. Oats in 2010 have come through the winter quite clean with little or no mildew. However, red leather leaf disease develop in April on many crops.

A good fungicide programme at the start of the season should start with preventative control of mildew. Many growers used Talius where crops were very clean but others used Tocata or Beam where red leather leaf was also a problem.

The next main fungicide application will coincide with the main growth regulator at second node (GS32). Products of choice at this timing will contain a triazole, plus a mildewcide. Products like Tocata 1.0-1.5L/ha or Beam 1.0 L-1.5L/ha, etc.

The final fungicide application should be timed at the ears emerging stage. The addition of a strobilurin at this stage should help to maintain colour in the grain which is especially important for the horse market. Products which fit well at this stage include Jenton, Tocata, Beam plus Amistar, etc.

# Planning for retirement

## And farm transfer



**John Norris,**  
Farm Management  
Specialist, Teagasc  
Kildalton

**M**OST farmland in Ireland is transferred to the next generation through gift and inheritance; only a tiny amount of land transfer results from sales on the open market. Retirement brings big changes in lifestyle and income levels and should be planned for. This article addresses the main issues to be considered in retirement planning by farmers. The main tax issues in relation to farm transfer will be examined in a future edition of *Today's farm*.

### Ensuring adequate income during retirement

People are living longer and will need an income which allows an acceptable standard of living. Medical and nursing home costs are increasing faster than general inflation and these can become major costs in later years.

Farmers need to plan early for their retirement and should consider the following potential income sources to help fund it:

#### • Farm retirement and Installation Aid schemes (suspended since 14 October 2008).

The Early Retirement Scheme (ERS 3 — 2007 to 2013) provided for an annual pension of up to €15,000 for eligible farmers over the age of 55 years and for up to 10 years.

About 2,500 farmers who qualified for this and the earlier scheme after 2000 are still receiving pensions, with total payments of approximately €40 million being paid in 2010.

The Young Farmer's Installation Scheme (YFIS) provided a grant of €15,000 for qualified young farmers under 35 years of age getting established in farming.

Both these schemes working together were very useful in allowing farmers to retire earlier than the old age pension age of 66 years, and allowed young

farmers to get established in farming at an earlier age.

Unfortunately, both schemes remain suspended by the Government since 14 October 2008 due to budget pressures and we do not know if they will be re-opened between now and 2013. This means that most farmers cannot now retire until 66, when the old age pension becomes payable, unless they have other income sources.

#### • The State contributory pension

This is the Old Age Contributory Pension which is payable from the age of 66. Most farmers are self-employed and pay Class S PRSI. Check with your accountant and the Department of Social Protection about your level of PRSI contributions and the level of pension you can expect at age 66.

The contributory old age pension is modest at about one third of the average industrial wage. The rates from 1 January 2010 are:

- Max personal rate = €230.30/week (€11,975/year)
- Person with qualified adult under 66 years = €383.80/week (€19,957/year)
- Person with qualified adult over 66 years = €436.60 (€22,703/year)

The farmer's spouse/partner is the qualified adult and this allowance is means tested. The full allowance is payable where the income of the qualified adult is under €100/week but declines gradually as other income rises to €300/week and is not paid above this. Some farm spouses in farm partnerships, and making their own PRSI contributions, can qualify for a pension in their own right rather than getting the qualified adult allowance.

Other farm spouses who work full or part-time off farm will be paying their own PRSI. Farmers approaching 66 should fill out a form and return it with supporting documentation three to six months before pension age to: Old Age Contributions Section, Pensions Services Office, College Road, Sligo, Tel: 071-9169800, or LoCall 1890-500-000.

The recently launched National Pensions Framework proposes that the qualifying age for old age pensions will increase to 67 in 2021 and to 68 in 2028; middle aged/younger farmers need to







take this into account. Farmers who fail to qualify for the State contributory pension can apply for a means tested pension which is lower and takes into account other income and assets.

• **Private and occupational pensions**

Some farmers have invested in private pension funds which can provide an income top-up to the old age pension. These pension funds suffered a drop of about one third in value in 2008 but have been recovering in 2009/2010.

There is good tax relief on pension contributions for high rate taxpayers but lower farm incomes in 2008 and 2009 have reduced the potential to invest. Farmers coming up to retirement should get advice on the various options they have to utilise their pension funds.

Farmer spouses who work off farm in teaching, nursing and other occupations will be eligible for their own occupational pensions.

• **Savings and investments**

Some farmers can top-up their retirement income with interest from savings, rent/lease income from property and dividends from shares. However, the recession has badly hit property and shares, and interest rates on savings are modest. Some of the capital can also be used towards living costs but it will not last long unless there are good reserves to begin with.

• **Land lease/rental income**

Some farmers may have no direct successors or their children may not be ready to take over the farm. These farmers can generate income from renting/leasing out the land and EU entitlements. There is a tax advantage to longer term leases to non-related persons at market value. The landowner must be over 40 years old when leasing out the land. The following amounts of lease income are tax free, depending on lease duration:

- five or six years: up to €12,000/year
- seven years and under 10 years: up to €15,000/year
- 10-year lease or longer; up to €20,000/year.

Leases within the family and rental agreements under five years do not qualify for tax relief.

Farmers who plan to sell or gift land later should check the capital gains tax implications with their accountant before renting/leasing out the land.

Where farms are large, the retiring farmer may retain some of the land for life as a source of security and lease it to the successor to generate supplementary income. It can then be transferred after death as an inheritance to the successor or another family member.

• **Sale of sites/land**

Some farmers may wish to retain sites or a valuable piece of land which can be sold now or later and provide extra security/cash lump.

» Next page

After the age of 55, a farmer can dispose of land up to €750,000 lifetime limit to non-related persons and claim retirement relief for capital gains tax, provided it was owned and farmed for 10 years or longer immediately prior to disposal. Prices and demand for sites are depressed at present, but, hopefully, will recover as the economy recovers.

There is a now a windfall 80% capital gains tax on the sale of development land introduced under the recent NAMA legislation. It applies to disposals of land on/after 30 October 2009 where the land has been re-zoned since that date. It also provides that the sale of once-off sites under an acre and valued at less than €250,000, are not subject to the windfall tax. It is not yet clear if the exemption applies to one site or multiple sites; get advice on this. Land disposed of by Compulsory Purchase Order (CPO) is exempt from the 80% windfall CGT — but is subject to normal CGT rules.

## What to do in retirement?

Retiring is a big step and farmers need to gear up for this by developing other suitable activities and leisure interests in good time before expected retirement. Many farmers continue to have an interest in the farm transferred and can help the successor in times of need.

Some retired farmers may continue to work on the successor's farm as an employee part-time while their physical health is good and earn a partial wage to supplement income. Discuss this with your accountant. Other farmers may have suitable part-time work off-farm or develop a small alternative enterprise.

## Medical cards and GP cards

Retired farmers under the age of 70 will find it difficult to qualify for a medical card except in exceptional circumstances. It is easier to qualify for a GP (family doctor) visit card as the income limits are 25% higher than for the medical card. It will also be easier to qualify for medical cards when over 70 years as a single person can have a gross income up to €700/week and a married couple €1,400/week since January 2009.

For more details, contact the Community Care Section of your local HSE. Where possible, retired people should try and maintain health insurance where they already have it and not break their contributions record.

## Nursing home costs

As people live longer, there is a higher chance they may have to spend time in a nursing home, which will involve substantial costs.

A new Nursing Home Support Scheme (The Fair Deal Legislation) came into effect on 27 October 2009. It replaces the Subvention Scheme which had been in place since 1993. A person's income and assets are subject to a detailed examination to decide on the level



Many farmers continue to have an interest in the farm transferred and can help the successor in times of need but, remember, farmers in the EU Retirement Scheme are not allowed to work on the farm.

of contribution which they must make towards the costs.

It is important that farmers are aware that there is a five-year 'look back' rule at assets, including the farm, transferred up to five years before entry to a nursing home, and these are included in the calculations. A three-year cap on contributions may apply to farms and businesses in certain limited circumstances and subject to a number of strict rules. As the scheme is new, various areas need to be further clarified. More details are available from the HSE (Lo-Call 1850-24-1850) or on the website [www.hse.ie](http://www.hse.ie)

Extra advice is essential before filling out application forms for assessment.

## The farm dwelling

Some farmers will retain ownership of the farm dwelling house for life when the farm is transferred, or they will retain rights of residence for life. In other cases, the retiring parents may build a new house or purchase an existing house. Plan for this in good time and get advice from your solicitor on rights of residence, maintenance payments from the farm and related issues.

## The successor

The successor will be identified already on most farms but, if not done, it is important to do it in good time so that the successor can plan accordingly. The

successor needs to have his/her agricultural education completed to avail of stamp duty and other incentives for young trained farmers.

Most importantly, the successor needs to ensure that he will have a viable ongoing income when he takes over the farm. He should not be overburdened with debt due to family settlements or excessive lease or support payments to parents relative to the income generated by the farm. The main tax issues will be examined in a future article.

## RETIREMENT | key points

- Retirement is a big life change and must be planned for. How will the free time in retirement be used? An adequate income must be provided for. Check the potential income from the old age pension and private pensions and also other sources like investment income, lease income, part-time employment and use of savings.
- As people get older, they are prone to suffer more illness and may need nursing home care. Issues like health insurance, medical cards and nursing home costs need to be addressed
- The young successor, once identified, needs to complete agricultural education and get ready to take over the farm.

# Sky dancing



**Catherine Keena,**  
Teagasc Kildalton

A farmer recently told me about an amazing sight he had observed — strange ritual behaviour by a medium sized bird of prey in the sky on a bright dry day. The farmer is one of 320 involved in the National Parks and Wildlife Service Farm Plan Scheme for Hen Harrier. I discussed the remarkable behaviour of the Hen Harrier during the breeding season from March to September with Barry O'Donoghue, NPWS.

Sky dancing is one of the most spectacular things in all of nature.

In this courtship display, the male shows off his skill, agility, stamina and prowess in a mind-blowing series of 'loops'. This entails soaring to great heights and speeding to within feet of the ground in a flurry of corkscrews, wind flapping somersaults, twists and turns, before rising again to continue the ritual for up to 15 minutes at a time!

## 'Dance-offs'

Two males can engage in 'dance-offs'. Females may also take part. Courtship displays can occur from late March to late May. Hen Harriers in flight typically glide with wings held in a shallow 'v', with occasional flaps. A hunting harrier hunts within five metres of the ground or vegetation, often doubling back on a particular area. A harrier carrying prey flies higher on a direct and purposeful flight.

## Food pass

Another amazing characteristic of the Hen Harrier is the food pass from the

male to the female. The male, carrying prey in his talons, will call to the female as he approaches the nest area. The female will rise to meet the male and, as she comes near him, she somersaults upside down, while he drops the prey for her to catch in her talons.

The male and female are so different in size and colour that for many years the two were thought to be separate species. The male Hen Harrier is a white bird with broad black tips to the wings, sometimes known as the white hawk.

The female is larger than the male and is brown with a white rump. Females have attractive under-wing patterns, with bars running through the feathers.



The female Hen Harrier who is larger than the male is brown with a distinguishing white rump. Females have attractive under-wing patterns, with bars running through the feathers.

PICTURE: Barry O'Donoghue, NPWS

## Watch out for Hen Harriers

Hen Harriers hunt for small birds and mammals over moorland, hill farmland and young conifer plantation. They require open areas, particularly farmed hill pastures.

Without grazing, vegetation becomes too rank for them to hunt.

Important areas are: Slieve Bloom Mountains in Laois and Offaly; Stack's to Mullaghareirk Mountains in Cork; Slievefelim to Silvermines in Limerick and Tipperary; Slieve Beagh in Monaghan; and Slieve Aughties in Clare and Galway. If in these areas, watch out for these magnificent sights.

## Don't miss out on new Agri-Environment Options Scheme

- With REPS4 closed to new applicants, a new Agri-Environment Options Scheme (AEOS) is now available to farmers not involved in REPS on 17 May 2010, the National Parks and Wildlife Farm Plan Scheme or the new Burren Scheme.
- The closing date is 17 May.
- Funding is available at the rate of €5,000 per farm per year for up to 10,000 applicants who join for five years.
- Actions may be chosen for which the total annual payment is less than €5,000.
- There is no guaranteed entry, except for

farms with SACs, SPAs or commonage. A Sustainable Management Plan must be drawn up by a planner for such farms.

- The whole farm is not involved. Actions are chosen for specific areas. Apart from normal cross compliance standards, there are no further requirements on the remainder of the farm.
- Eighteen actions are available involving extensive grassland, tillage, hedgerows, trees, watercourses, stone walls, wild bird cover, rare breeds and traditional orchards.
- At least two actions must be chosen.

- Extra actions above the minimum two required may be chosen which may increase the chance of gaining entry to the scheme.
- There is no limit to the extent of any action undertaken, except the traditional orchard, which is limited to one per farm.
- For more information see <http://www.agriculture.gov.ie/farmerschemes/payments/ruralenvironmentprotectionschemereps/repstandaeoschemes/aeoscheme/>
- Contact your local Teagasc office.

# Don't watch your fertili

The Agricultural Catchments Programme (ACP) is working to benefit farmers and the environment

**Ger Shortle** ACP programme manager

**W**HEN farmers get high plant uptake from the nutrients they spread in manures and fertilizers, they get the best financial return. The nutrients are being used to produce more of what the farmer wants — be it grass, grain, root-crops, etc — and the nutrients can't be lost from the soil to surface or groundwater if they are taken up by the crop.

The Agricultural Catchments Programme (ACP) is an integrated advisory/research programme that is working in co-operation with farmers in six catchments around Ireland to improve our understanding of the fate of nutrients applied on farms. The aim is a better scenario for both farmers and the environment.

## Dangers

Fertilizer being 'lost' is the worst outcome for farmers and the environment. Nutrients getting into water have the potential to cause nutrient enrichment and ecological problems. Meanwhile, farmers are obliged to spend more on fertilizer to meet crop requirements. The two nutrients that are of most concern are nitrogen (N) and phosphorus

## ACP | what is it?

- Research is needed to help ensure that we can continue to produce good food efficiently and profitably in a way that doesn't damage the environment. We also need to monitor and evaluate the measures in the Nitrates Action Programme (NAP) to comply with the Nitrates Directive.
- The Agricultural Catchments Programme was set up to do this research and evaluation. The Programme depends on the co-operation of farmers in six catchments and a broad range of data is being collected on production, financial and nutrient management issues to show how farmers are 'doing their bit' for water quality by complying with GAP measures.



(P). The amount of both N and P that can be spread is now restricted under Good Agricultural Practice measures, and they represent substantial input costs on most farms — good reasons to use them as efficiently as possible.

Researchers around the world are devoting substantial time and resources towards understanding how nutrients can best be kept on the farm, limiting potential losses to water.

Small amounts from nutrient sources, such as fertilizers, manures and soil reserves, can be mobilised due to natural processes, such as erosion or leaching. The nutrients find their way into pathways through which water moves, either on the surface or through the soil, subsoil or in the bedrock. These nutrients are delivered to water bodies such as rivers or lakes, where the water may become nutrient-enriched, affecting the ecology of the water body.

## Setting up the catchments

The ACP aims to improve understanding of how this process works under Irish conditions. Six catchments have been established across a range of soils types and farming systems. The catchments were carefully selected after rigorous searching using a computer-based geographic information system, as well as on-the-ground judgement and local knowledge.

Each catchment had to meet a range of criteria, including soil type, farming intensity, enterprise mix and practical suitability for carrying out measurements on the catchment stream.

The goodwill and participation of the farmers is the most important factor in establishing a catchment and achieving good results from the programme. The first step in the process was to meet each farmer in the catchment individually.

This job was carried out by the advisers working as part of the ACP team. They explain what the programme is about, and its importance for the future of Irish farming. In all six catchments, the support and participation of the farmers has been excellent.

## Achieving the balance

The key to good nutrient management is achieving a balance between the requirements of the crop being grown and the supply of nutrient available in the soil. There's an increased risk of loss where levels of nutrients in the soil are greater than the crop's needs.

These nutrients cost money to put there in the first place, and may be an unnecessary cost on the farm business. On the other hand, if soil nutrient supply is less than crop requirement, yield may be reduced, potentially causing a reduction in farm income.

Step one in getting the balance right

# izer go down the drain



**ABOVE:** Tom O'Connell, ACP officer, with neighbours Pat Callan and Michael Callan who farm near Dunleer.

**LEFT:** Eddie Burgess and Per-Erik Mellander discuss crop establishment with Wexford farmer James Masterson.

is finding out the nutrient status of the soil. The ACP is conducting detailed soil-testing in the catchments to establish soil nutrient levels for each field or subdivision of larger fields. The results are being returned to farmers with nutrient recommendations and nutrient management plans where appropriate.

Participating farmers are keeping records of fertilizer and manure applications, which will be very useful in developing nutrient balances at field, farm and catchment level.

An index system with four categories — very low (1), low (2), medium (3) and high (4) — is used to categorise soils according to their concentrations of P and K. These give an indication of the re-

“ Results from these trials will help to improve the understanding of how cereal crops and soils reserves respond to varying levels of applied P and K

sponse to applied fertilizer — definite, likely, unlikely and none respectively.

The soil analysis results from the catchments are beginning to reveal the distribution of P and K concentrations across the catchments. There is variation in soil nutrient levels across catchments and within farms.

In many cases, there is an obvious imbalance in the way that nutrients have been applied in the past, leading to a legacy of high nutrient levels in some fields and low levels in others.

For P this is particularly significant, as it may take many years for high P levels to decrease in the soil, despite farmers changing their management and not applying P to these fields.

Changes are likely to be particularly slow if P offtakes are low — e.g. on more extensively stocked farms or on soils that have a high potential to retain P.

ACP adviser Tom O'Connell works closely with farmers in the Dunleer catchment in Co Louth to optimise nutrient management. Good records of fertilizer and manure applications are essential for both good farm management and the ACP research programme.

Pat and Michael Callan, who both farm near Dunleer, are two of Tom's clients who are keeping nutrient application records as part of the programme.

With the co-operation of tillage farmers in two of the catchments, three

phosphorus and potassium (K) response trials have been set up by ACP researcher David Wall and tillage specialist Mark Plunkett.

These on-farm trials encompass a range of soil types and P and K levels: two trials are taking place on spring barley in the free-draining Castledockerell catchment, and there is one trial on winter wheat in the Dunleer catchment where the soil is less well drained.

ACP adviser Eddie Burgess works in the two Wexford catchments. One of his clients, tillage farmer James Masterson, who farms near Castledockerell, has provided a site for one of the trials. Like most farmers in the area, James is keen to see the outcome of these trials, as phosphorus fertilizer is a substantial cost in spring barley production.

The aim of these response trials is to establish economic optimum P and K fertilizer rates specific to the crops, soil types and the levels of background nutrients available.

Results from these trials will help to improve the understanding of how cereal crops and soil reserves respond to varying levels of applied P and K and consequently help improve the nutrient recommendations advisers give to farmers.

The ACP programme will include similar trials on grassland sites as time and resources allow.

# Watering plants

## Why too much can kill



**Harold Lawlor,**  
Teagasc

**W**ITHOUT water, plants die. Meeting this basic need should be simple and straightforward. Why, then, are so many more plants killed by over-watering compared with under watering? Watering is actually one of the most skilled jobs any horticulturist or gardener can be asked to perform.

You may wonder why? To appreciate all the elements involved in deciding how much and how often plants require watering necessitates a number of major decisions by the person applying the water.

Only 2% of the water that plants take up is needed for healthy growth; they lose the other 98%. This is because water moving inside the plant helps to cool it down and to transport important plant nutrients from the growing medium into the plant.

Evaporation of water from the leaf surface is influenced by temperature, wind and humidity. If you think how quickly or slowly clothes dry on a line under different temperature regimes, wind speeds and humidity levels, it will give you an idea of how quickly or slowly water is lost from the surface of a plant.

The ability of a root system to intercept rainfall or irrigation varies significantly, depending on whether the plant is growing in the ground or in a container. Plants growing in open space have extensive root systems and can abstract

“ Only 2% of the water that plants take up is needed for healthy growth; they lose the other 98% ”



A safe method to water the plant from below involves placing it on a saucer containing either fine sand or a piece of cloth.



An occasional series by experts at the Teagasc college at the National Botanic gardens aimed at adding to the appearance and value of your farm

water many metres away from the main stem. However, plants in pots or containers have a restricted root system and a canopy which may deflect water from reaching the pot.

Ultimately, the plant depends on sufficient water being supplied by the grower, especially indoors. A bathroom sponge is a good approximation of how the soil holds water. Soak a sponge in a basin of water, expel all the air and then lift it out of the basin. Water will leave the sponge by the force of gravity. This water is lost in reality through the drainage holes in the pots. The spaces vacated by water draining due to gravity are replaced immediately with air. The remaining water in the sponge is either available or unavailable water and is visible as a saturated zone in the sponge.

The available water can easily be squeezed from the sponge by applying pressure but the unavailable water can-

not be extracted from the sponge and, in the same way, the soil can contain water which is not available to the plant roots.

Growing media (peat, soil, sand, bark, various mixes) mirror the sponge model concept and have different water holding capacities which influences the amount of water required and the frequency of application.

The height of the pot or container also influences the amount of water lost by gravity. Tall pots will have a greater head of pressure and lose more water than dwarf pots of the same capacity and, as such, will be more forgiving because the saturated zone will be lower down in the pot compared with a dwarf pot.

What perplexes me most about watering is when people leave plants sitting on saucers full of drainage water. How do they expect the roots to survive without air? Could you imagine standing barefoot in cold water for hours on end, particularly in periods of lower temperatures? It would not be a nice experience for either the person or the plant. This approach to watering is responsible for most of the losses due to over-watering, particularly in spring, autumn and winter.

A far safer method is to water the plant from below when it is placed on a saucer containing either fine sand or a piece of cloth. Apply sufficient water to just cover the sand or cloth and allow the growing medium to suck the water in. Replace water used by the plant and evaporated from sand or cloth as required.

This approach will result in far fewer plant 'casualties'.

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- The Farmers Journal FBD National Farmyard Awards
- Macra 3C Discussion Groups for young farmers

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