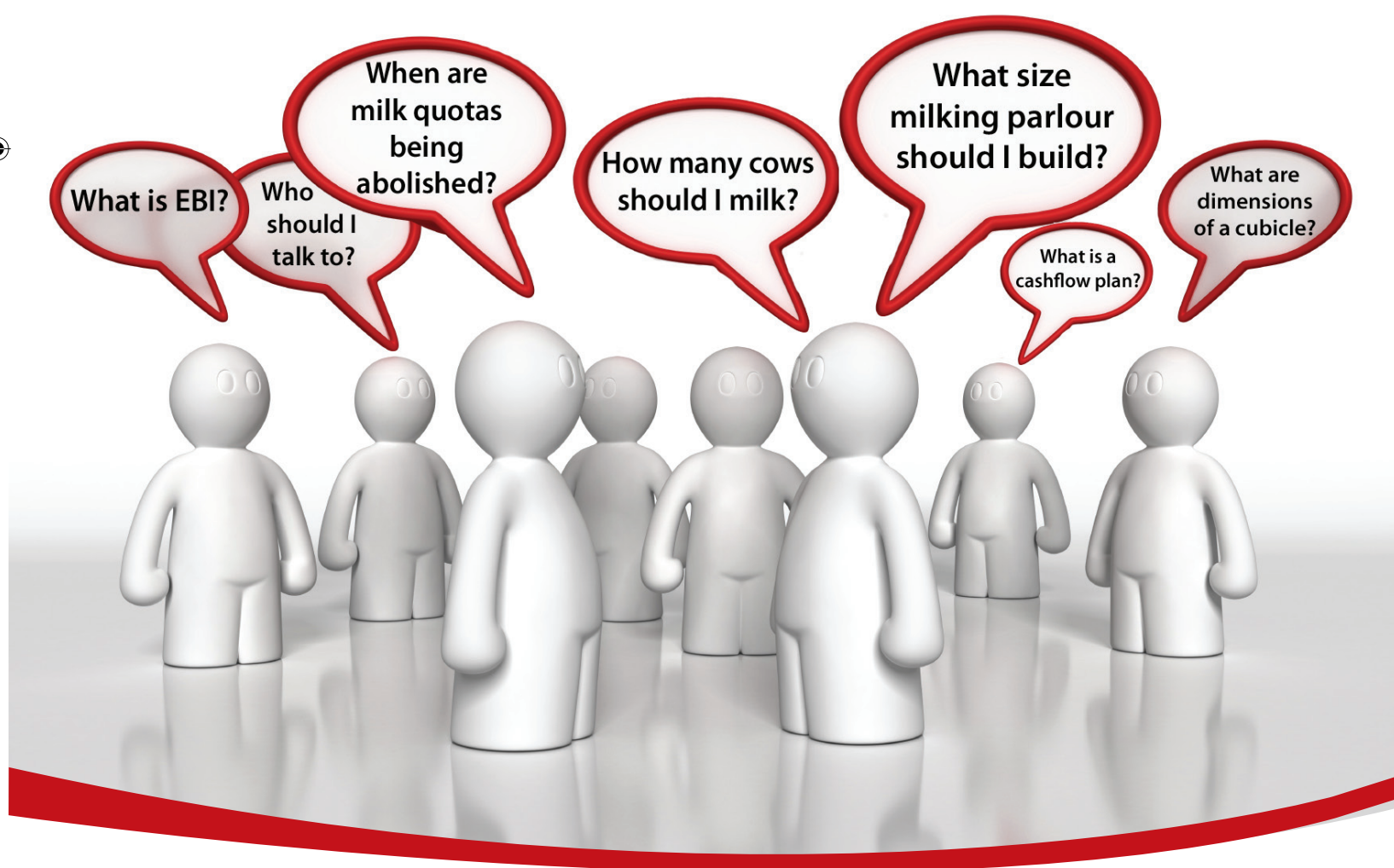




Animal &  
Grassland Research  
& Innovation  
Programme

# New Entrants to Dairying

## - 50 Frequently Asked Questions



# Q & A

## SUPPLYING MILK

**Q** When are milk quotas being abolished?

Milk quotas will be abolished on March 31<sup>st</sup> 2015.

MARCH						
Mon	Tue	Wed	Thu	Fri	Sat	Sun
23	24	25	26	27	28	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

**Q** What Co-op can a farmer supply milk to?

Farmers need to talk to their local co-op(s) about starting milk production; three months' notice is required.

**Q** Is there a charge / cost per litre for new entrants supplying milk to a Co-op?

Co-ops have different approaches to accepting new milk post 2015. Some co-ops will take milk without an extra charge but will require suppliers to be shareholders in the co-op. Other co-ops will take a charge per litre, which may be a loan or put into a revolving fund (returned after a number of years). Again it is best to talk to the local co-op about their milk purchasing arrangements for new entrants.



**Q** What are milk solids?

Milk solids refer to the amount (kgs) of protein and fat in a quantity (litres) of milk. Take a cow that produces 5,000 litres of milk in a season. If the milk contains 4.1% fat and 3.4% protein, then the milk has 7.5% milk solids. The total amount of fat produced is  $5,000 \times 1.03 \times 0.041$  which equals 211kg. Total protein produced is 175kg. Therefore, this cow has produced a total of 386kg of milk solids in the season.

**Q** What is the payment system for milk?

Most co-ops pay on an 'A + B - C' payment system.

A is the price paid (€/kg) per kg of protein, B is the price paid (€/kg) per kg of fat and C is a reduction for each litre of milk supplied (volume charge). Protein is most valuable, currently about €7/kg, fat is about €3/kg and there is a charge for the volume (between 3 to 5 cent per litre) as this has to be evaporated off which is a major energy cost to the co-op.

**Example:** Milk with 3.5% protein and 4.2% fat  
 $\text{€}7 \times (3.5/100) + \text{€}3 \times (4.2/100) - 0.4\text{cpl} = 33\text{cpl}$



Talk to your local co-op



# Q & A

## PROFITABILITY

**Q** What is the profitability of the top performing dairy herds?

Top performing dairy herds are exceeding €1,000 profit per cow. At stocking rates of 2.5 cows per ha these farms are generating over €2,500 profit per hectare.



**Q** What are the factors that make these dairy farms most profitable?

Profit is a combination of good output and controlled costs. High profit farms receive a high milk price ( high protein %, high fat % and quality bonus), have good output per cow (kg milk solids), have lower replacement rates and are more highly stocked on the milking platform. All costs are kept under control; the focus is on utilising grass to feed the cow.

**Q** What is the average profitability of cattle, sheep and dairy per ha?

The following table shows average net profitability (€/ha) for different enterprises from the National Farm Survey (NFS). It does not include single farm payment, or other payments such as AEOS, etc

	2010	2011	2012	average	40 ha
Dairy Cows	771	1310	783	955	38,187
Single Suckling	-203	-39	-46	-96	-3,840
Cattle Finishing	-24	-67	-70	-54	-2,147
Sheep	-74	264	165	118	4,733
Spring Barley	149	115	133	132	5,293
Winter Wheat	433	388	123	315	12,587

**Q** What is a cash flow plan?

One difference noticed by new entrants is the amount of money entering and leaving the farm each month/year. A cash flow plan projects for each month what money will come in and what money will be spent. This is crucial for new entrants; it will show that a plan will work. See page 82-83 of Teagasc Dairy Manual.

**Q** How many cows should I milk?

This is the big question! It is different for all new entrants. Cows are needed to generate income for yourself (house and family), to generate income to make repayments (for set up costs) and in some situations to pay for labour. It is only an overall physical farm plan and financial plan for your farm that will answer this question.

A cash flow plan projects what money will come in and what money will be spent



# Q & A

## MILKING FACILITIES

### Q What size milking parlour should I build?

For moderate sized herds the recommendation is to have 6-7 rows of cows. This will allow the herd to be milked in about one hour. Eg 70 cows - 10 unit parlour, 100 cows - 14/16 unit parlour. For larger herds, 8-10 rows of cows will allow for a reasonable milking period.



### Q What are the basics and extras in a milking machine?

A basic milking machine will contain a vacuum pump, milk line, vacuum line and wash line and a milk receiver jar with a milk pump. There are many extras and automations that can be added. These include cluster removers, milk metres, auto gates, dump line, auto feeders, auto drafting, cluster flush and many more.

### Q How much could a milking parlour cost?

The basic machine will cost about €2,000 per milking unit; including all of the extras will push the cost per unit up to €8,000. In addition the cost for the building, dairy, collecting yard with tank is about €4,000 per unit. Second hand machines can be good value, but take into account the cost of installing them.

### Q How much will bulk tanks cost?

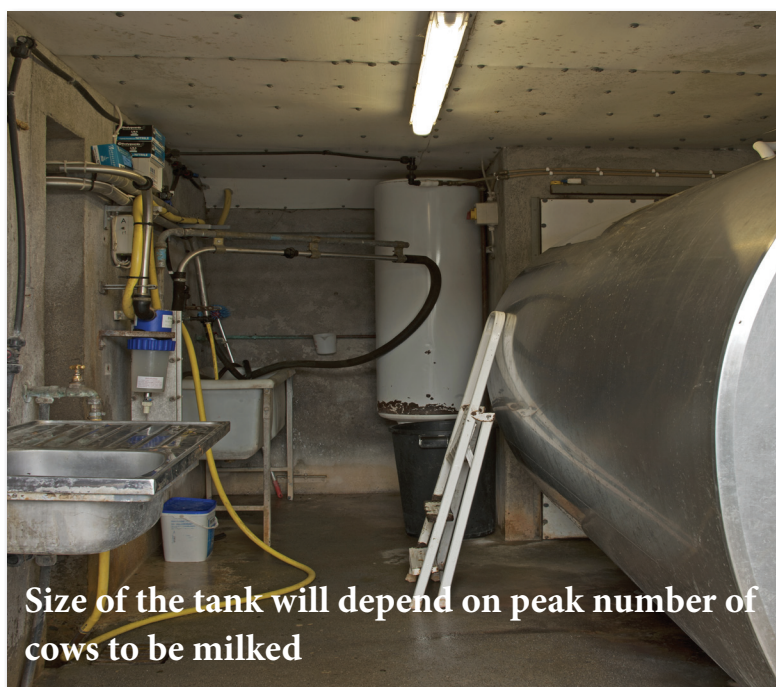
A new tank will cost between €1.75 – 2.50 per litre capacity.

### Q Where should the milking parlour be sited?

Ideally the parlour should be sited in the middle of the grazing area. Cows will be walking to and from the grazing area about 1,000 times in the year.

### Q What size bulk tank do I need?

The size of the tank will depend on peak number of cows to be milked, their yield and the number of collections per week by the co-op. Some co-ops are moving to three day collections so the bulk tank should have enough capacity for 3.5 milkings. For example, 100 cows x 28 litres/day x 3.5 milkings = 9,800 litres bulk tank required.



Size of the tank will depend on peak number of cows to be milked





# Q & A

## PURCHASING STOCK

### Q What type of cow should I buy?

The most profitable cow will calve in spring, go back in calf (365 day calving interval) easily, milk for 280 days plus and produce high milk solids from grass. High EBI cows, with a high fertility sub-index (€100+) will achieve this.

### Q What is EBI?

The Economic Breeding Index (EBI) is a measure of the genetic potential of an animal.

The Index base is €0 and seven sub-indices (milk, fertility, health, maintenance, beef, calving and management) contribute to the overall EBI.

When purchasing dairy stock ask for farmer's EBI report. Buy animals which have a balance between fertility and milk in their Index. Buy animals with at least €200 EBI of which more than €100 is fertility.

### Q Is EBI working on dairy farms?

Yes. Moorepark research and on farm data prove it. For example, high EBI herds in Moorepark have delivered higher output and lower costs when compared to low EBI herds.

### Q Should I buy calves, bulling heifers or calved cows?

It will depend on availability and how quickly you want to commence milk production – the advantage of buying in calf heifers is that they are close to generating cash flow – the disadvantage is that they cost more to buy. Older animals could have health issues, e.g. SCC, lameness

### Q What are the pros and cons of crossbred cows?

Crossbred dairy cows (Jersey, Norwegian) will have better fertility performance than the pure breeds due to hybrid vigour. They will also tend to be smaller (Jersey crosses) and usually will have much higher milk fat and protein %, therefore higher milk price. On the down side calves and cull cows are less valuable (again the Jersey crosses). Talking all these factors into account, Moorepark work has shown that crossbred cows are more profitable.



Crossbred dairy cows will have better fertility performance



# Q & A

## GRAZING INFRASTRUCTURE

### Q What size paddocks?

In spring and autumn cows are usually allocated grass on a 12 hour basis. During the summer months most farmers are allowing three grazings per paddock. A cow will eat about 17kg grass dry matter so the allowance per paddock for three grazings should be 26kg per cow ( $17 \times 1.5$ ). If the ideal pre grazing cover is 1,400 then paddock size can be calculated  $100 \text{ cows} \times 26 \text{ kg per cow} = 2,600 \text{ kg required}$ .  $2,600 \text{ required divided by } 1,400 \text{ ideal cover} = 1.85 \text{ ha paddocks (4.6 acres)}$ . These are 3 grazing paddocks, so in a 21 day rotation (April - July), about 14 of these sized paddocks are required.



Aim for three grazings per paddock

### Q What is an appropriate roadway for cows?

Elements of a good roadway include appropriate width (100 cows - 4 metres wide, 200 cows - 5 metres), smooth surface, cross fall to shed water, raised above the grazing area and corners with sweeping curves. Construction costs can vary, from €15 to €30 per metre, depending on the cost of materials, width and the method of construction.

### Q What size water troughs are required?

Nine litres per cow (two gallons) should be available in the paddock per cow with a flow rate of 0.2 litres/minute per cow (20 litres/minute/100 cows). About 5% of the herd should be able to drink at the one time. (30-45cm/cow)

### Q What size water pipes?

Ideally a loop system with 32-40mm ( $1 \frac{1}{4}$  or  $1 \frac{1}{2}$  inch pipes) is required.



# Q & A

## WINTER FACILITIES

**Q** How much slurry storage is needed for a cow?

0.33 cubic metres required per week per cow where no rainfall is included. For example, an 18 week winter requires 5.9m<sup>3</sup> (1,300gallons)

**Q** What are the alternatives to conventional housing for dairy cows?

They include topless cubicles, outwintering pads, kale, straw bedding.

**Q** What are dimensions of a cubicle?

Cubicle width is 1.2m and depth is 2.3-2.6 metres. One cubicle required per cow.



**Q** How much silage does a cow need over winter?

A cow will need 10kg silage dry matter per day, which is equivalent to about 50 kg fresh weight

3 month winter – 0.9t DM (4.5t fresh wt)

4 month winter – 1.2t DM (6t)

5 month winter – 1.5t DM (7.5t)



A cow will need 10kg silage dry matter per day

# Q&A

## BREEDING

### Q What are the main breeding targets?

90% submission rate in the first three weeks of the breeding season, six week calving rate of 90% and empty rate of less than 10% for a 12 week breeding season. Sign up to ICBF Herdplus ([www.icbf.com](http://www.icbf.com)) to access reports for your herd on breeding performance.

### Q What bulls should I use?

Use high EBI straws to generate your future breeding stock.

### Q How many inseminations does it take to get a heifer milking in three years time?

Approximately 5.5 straws are required to result in a heifer milking in three years' time. Conception rate is about 50%, male female ratio is about 50% and there will be some heifer losses, which requires the 5.5 straws.

### Q What is the target breeding weight for heifers?

The objective is to have heifers calving at two years of age; target mating weight for HF is 330kg and 295kg for Jersey X. To achieve these gains heifers must gain 0.7 kg/day up to two years of age.

### Q How do I get a high submission rate at the start of the breeding season?

Cows must be in good body condition, be calved over 30 days, have no calving infection and use a good heat detection aid.

### Q What heat detection aids work with dairy cows?

Farmers use all heat detection aids, they all work as an aid to identifying cows in heat. Teaser bulls are being used more widely now.

**Tail paint: the farmer's best friend during the breeding season**





# Q&A

## NUTRITION

### **Q For 100 cows – how much land do I need?**

It depends on how much grass your farm can grow. A cow needs about 5 t of grass dry matter for grazing/silage for a full year.

A farm growing 10 t grass – 50 ha required (stocking rate 2.0 LU/ha)

Farm growing 12 t grass – 42 ha required (stocking rate 2.4 LU/ha)

Farm growing 14 t grass – 36 ha required (stocking rate 2.75 LU/ha).



### **Q How much does a milking cow eat?**

A milking cow will eat about 17kg dry matter per day.

### **Q How much meal does a cow need?**

Cows will be in negative energy balance after calving and need meal to try and minimise this body loss after calving. Where adequate grass is available approx. 250 kg meal would be sufficient in this period (3-4kg meal for 60-90 days). Meal fed for the remainder of lactation is usually to fill for grass deficits and extend the grazing rotation in autumn.

### **Q What is the ideal grass for cows in summer?**

Grazing low covers in summer will restrict cow intake, grazing high covers in summer will limit energy intake as this grass contains more stemmy material. The optimum cover is about 1,400 kg as this contains mostly leaf which is highly digestible. A 1,400kg cover is when most of the grass plants are at the 3 leaf stage.

### **Q How is grass managed on a dairy farm.**

In Spring, a set area is grazed each day so that the full farm is grazed by April 5<sup>th</sup>. During summer a 21 day rotation is practiced, where growth is high, surpluses are removed, if growth is poor, addition feed is fed (silage/meal for a short period). In autumn, a closing rotation plan is needed.

# Q & A

## WORKLOAD

### **Q** How many cows/replacements can one person manage?

One person can manage 100 cows plus followers by using casual labour in spring time. These farms have good facilities and use contractors at peak periods.

### **Q** What is contract heifer rearing?

This is where another farmer takes the heifer calves (usually at about 3 months) and rears them to about 22 months of age. They are then returned to the dairy farmer. The rearer is paid a fee per day for contract rearing.

### **Q** What is once a day (OAD) milking?

This is where the herd is milked once every day rather than twice daily. Production is lowered by about 20%, but milking costs are also lower. The two reasons for OAD are quota restrictions and lifestyle. Cows can be milked at any time but herd SCC should be low initially.

### **Q** Can dairy farmers can have a 'good lifestyle'?

Modern dairy farming will allow a very acceptable lifestyle. There will be seasonal labour peaks (e.g. calving) but there will also be labour troughs (e.g. dry period). By using all the available research and technologies dairy farmers can have reasonable working hours.

#### **Milking**

16:8 hour milking interval (8am/4pm) has no effect on milk yield, once a day milking and 13 times a week milking are all options.

#### **Calf Rearing**

Group feeding of calves, once a day feeding and early turnout all reduce workload.

#### **Contractors**

Use during peak work periods e.g. fertiliser, slurry, calf rearing, contract milker, reseeding

#### **Casual Labour**

An essential component

#### **Grass based system**

Long grazing season, simple feed system

#### **EBI**

Compact calving, high fertility

Dairy farmers can also have very good family lives. They can have more hours of contact with their children, being available to drop and collect them from school etc.





# Q & A

## INFORMATION

### Q Who is my local Teagasc Dairy Advisor?

Teagasc has 80 Dairy Advisors. Contact your local Teagasc office and they will put you in touch with a dairy advisor in your region.

### Q Where will I get an EBI report?

The Irish Cattle Breeding Federation (ICBF) issue EBI reports, ask a farmer for the report when stock are being purchased.

### Q Where will I get information on dairy herd diseases?

The Animal Health Ireland (AHI) website ([www.animalhealthireland.ie](http://www.animalhealthireland.ie)) contains farmer friendly factsheets on diseases affecting dairy farmers.

### Q What will it cost me to get up and running?

If you were starting from a Greenfield site it could cost over €4-5,000 per cow to set up a

dairy enterprise. This cost will be reduced where existing stock is available to sell, slurry storage is already in place, reseeding has been carried out, second hand equipment is purchased etc. No two farms will have the same set up costs. Individual farmers have spent between €2,000 and €5,000 per cow place.

### Q How can I finance the start-up costs?

Use your own assets (stock, cash) and in many situations a loan will be required. A full physical and financial six year plan will be required. Talk to your bank rep early on as where required, acquiring finance can take longer than expected.

### Q What should I do first/ prioritise?

There are three essentials – get the right type of cow, get the grass land area set up to produce and utilise grass and have a financial plan for your farm that you understand.

### Q Who should I talk to?

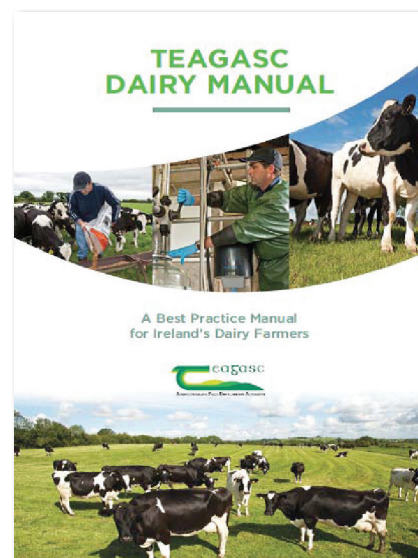
Talk to your local Teagasc Dairy Advisor and your local co-op Advisor. Talk to profitable dairy farmers who enjoy dairying as a lifestyle. Join a local dairy discussion group.

### Q As a drystock farmer - I have no experience of dairying!

Start milking cows for a profitable dairy farmer who enjoys dairying as a business and a lifestyle. Visit open days and field events. Join a dairy discussion group. Prepare a business plan for your farm using your own costs/ quotes.

### Q Where can a farmer get more information?

1. Purchase the Teagasc Dairy Manual (310 page manual) from your local Teagasc Dairy Advisor.
2. [www.teagasc.ie](http://www.teagasc.ie)
3. [www.greenfelddairy.ie](http://www.greenfelddairy.ie)
4. [www.icbf.com](http://www.icbf.com)
5. [www.animalhealthireland.ie](http://www.animalhealthireland.ie)
6. Your local co-op



### Q What training/support is available for new entrants?

- Discussion groups
- One to one advisory
- Short courses
- Open days

## Contact Details for Teagasc Advisory Offices

### Cork East

Teagasc, Knockgriffin, Midleton, Co. Cork	021-4631898
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### Cork West

Teagasc, Advisory Office, Clonakilty College, Darrara, Clonakilty, Co. Cork	023-8863130
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### Galway/Clare

Teagasc, Advisory & Training Centre, Mellows Campus, Athenry, Co. Galway	091-845200
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### Kerry/Limerick

Teagasc, Gortboy, Kilmallock, Co. Limerick	063-98039
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### Laois/Kildare/Meath/Louth/Dublin

Teagasc, 1 Park Villas, Portlaoise, Co. Laois	057-8621326
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### Mayo

Teagasc, Newport Road, Westport, Co. Mayo	096-22077
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### Roscommon/Longford

Teagasc, Abbey Street, Roscommon	090-6626166
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### Sligo/Leitrim/Donegal

Teagasc, Drumboy, Mohill, Co. Leitrim	071-9631076
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### Tipperary

Teagasc, Castlemeadows, Thurles, Co. Tipperary	0504-21777
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### Waterford/Kilkenny

Teagasc, Shandon, Dungarvan, Co. Waterford	058-41211
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### Westmeath/Offaly/Cavan/Monaghan

Teagasc, Clonminch, Tullamore, Co. Offaly	057-9321405
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### Wicklow/Carlow/Wexford

Teagasc, Coolruss, Tinahely, Co. Wicklow	0402-38171
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