

GrasslandNews



UK dairy farmers are facing a major and growing challenge - how to manage risk - with the certain loss of support subsidies, with BREXIT just around the corner, and with an increasingly volatile set of costs and returns from the global market.

Nicola Shadbolt, renowned Professor of Farm and Agribusiness Management at Massey University in New Zealand, plans to try and help farmers prepare for this risk, having carried out substantial research on the traits that demonstrate the difference between its perception and management.

Nicola has watched New Zealand's farmers cope with considerable change over the past couple of decades. First there was the overnight removal of subsidies, with no warning, and more recently, for a country where over 90 per cent of the milk produced is exported, a halving and then a doubling of the milk price.

"What worries farmers across the world? Climate or weather, volatile markets, increasing legislation and the increasing consumer conversation - their desire to learn more about where their products come from and their safety. I think the only difference

with UK farmers, perhaps, is that they are constrained by tradition and the institutional ownership of land. We have an 8% annual churn on land in NZ, it's a much lower figure in Europe."

Her research, conducted with university colleagues, confirms that managing both upside and downside risk will be a major challenge for farmers in years to come. In order to face this through either capturing upside or mitigating downside, they must become more resilient.

"Resilience requires the farming industry to mitigate threats, capture opportunities and adapt to change. But what makes some more resilient than others?"

First the team identified five attributes of resilience – general self-efficacy, willingness to accept uncertainty and change, locus of control, openmindedness, social sense-making and strategic thinking. Also, high resilient farmers perceived more opportunities in risk than low resilient farmers. They also made greater use of, and gave more importance to, strategies associated with prevention, mitigation, flexibility and diversity.

...continued on page 2

LIC Conference

Put the date in your diary - October 16 - and book your place at the LIC Pasture to Profit conference in Birmingham.

Keynote speaker is Nicola Shadbolt from Massey University in New Zealand, world renowned for her wisdom in helping farmers to become resilient when the going gets tough.

She will be joined by four leading UK farmers who will all look at how to attract and retain staff, as well as the benefits of once-a-day milking, investment for growth, the challenges from running multiple units and all year round calving and high output systems. **See inside**

for more details on their farms.

After lunch the spotlight will turn to decision making in unpredictable times, soil, and a video link presentation from Dr John Roche in New Zealand.

All-in-all it promises to be the one conference you can't afford to miss this year, and builds on the huge success of previous events which have been packed with interested farmers and industry professionals. The day is preceded by a dinner, on Monday October 15, to be addressed by Robin Page, farmer, journalist and television presenter, currently chairman of the Countryside Restoration Trust.

Please go to http://bit.ly/2vZgUES to book your place as soon as possible.

Resilience is an essential quality when coping with risk - continued from page 1

"Self-efficacy is defined as the belief in one's capabilities to organise and execute the courses of action required to produce given levels of attainment," she explains. "So, people with a strong belief in their capacity to overcome stressful situations are more able to bounce back. They are more likely to set more challenging goals, and self-efficacy affects the way risk is perceived – people with strong self-efficacy are more likely to see a source of risk as an opportunity rather than a threat."

Resilient farmers will have a strong internal locus of control, meaning they believe they have control over external events and, therefore, that their behaviour is the main factor responsible for their situation. They have confidence to adopt planning in their decision making.

In agriculture, where many of the changes are inherently uncertain, a farmer's willingness to face the reality of uncertainty and ambiguity is an attribute that indicates their level of resilience. To be open-minded they need to accept that plans may be changed for new ones if the conditions so require.

The research conducted at Massey confirmed there are both high resilient and low resilient farmers, based on these five different attributes.

"In order to build resilience, farmers can be encouraged to develop the skills that help foster the resilience attributes that were identified as being more important to high resilient farmers," she says. "Activities could include participation in discussion groups, encouraging farmer networking, encouraging interaction both inside and outside the industry and finding and promoting opportunities for learning. They should be encouraged to consider a range of choices to address a problem.

"At the end of the day you don't know you're resilient until you've survived. We've been surveying farmers since 1996 and we're able to show trends that indicate NZ farmers have changed in attitude as the world has become more volatile.

"A resilient business is one that continuously monitors the business environment, is performing well, utilising its assets well, and is able to adapt quickly to change, and is not afraid to make quick decisions if the situation changes. These businesses will perform well and still be operating in 20 years' time."

Challenges with labour? Then be more flexible

"We, as dairy farmers, must accept that migrant labour may not be as readily available in future and look at how we address this," says Richard Smith, who farms with his brother Daniel and mum Christine, at Lower Kingston Russell Farm near Dorchester. "I think we seriously need to consider the long hours culture. We're competing with other industries and the expectations on our employees, along with relatively low pay, is no longer acceptable, and certainly not appealing to many potential employees."

Richard's farming system has overcome these obstacles, with what some may describe as an unconventional approach to farm management. Around 16 years ago, shortly after moving from a 200-acre from in Surrey with 80 cows, to a 400-acre farm in Dorset, Richard made a decision to change from all year calving to spring calving, convert to an all grass system with no concentrates and milk once a day. During this time the herd also operated under organic status for six years but in 2006 opted to sell to a cheese company to fully benefit from the high component milk that being produced under the once a day grass system – currently 5% fat and 4% protein. Today, the farm has expanded to 750 acres and carries a 500-cow herd plus all replacements and milked through a recently expanded 40:80 parlour, with two people.

"As the business expanded and the workload demanded the need for staff, in 2013 I put an ad in the local paper. Three out of the four people we selected are still with us and I believe there are several reasons why this is," explains Richard. "Firstly, the once a day milking makes it much more viable for people looking for a part time job. This immediately broadens your pool of people. We also pay above average rates – which I feel makes people more conscientious and shows you value their efforts.

"We also start at 7.30am – which fits in with peoples busy lives and can fit around school pick ups for example. I believe this is the most productive time of day, so I get the best out of people. I also employ more people on fewer hours. By doing this I always have back up so minimise any disruption to the business and, on a personal level, I like to have different people around – it makes the day more interesting.

"From my experience, I would recommend considering being more adaptable in terms of work hours and believe it would open up a whole new workforce for dairy farming."



RICHARD SMITH Lower Kingston Russell Farm, Long Bredy, Dorcheste



We visit Richard Henderson from Cumbria who has made some radical changes to his dairy herd management with positive results

Taking on responsibility of the farm accounts Richard Henderson from The Gill, near Carlisle in Cumbria, had his eyes opened on the true cost of milk production to his business which led to a complete transformation of the business.

"On paper herd performance was good – we were producing 9000 litres per cow, with a 385-calving interval and the herd housed all year. We were growing multiple crops, but had a high level of bought in feeds. However, once I went through the figures in detail a whole new picture emerged.

"The wet year of 2012 was a turning point, and I felt the work and stress involved in our system was not sustainable. Although we were making profit, the margins were low, feed costs were high, and a drop in milk price would have had a serious impact on the business. It was disheartening to invest so much time and effort into a system that was so delicate.

"I knew it needed a whole new approach - one much less reliant on bought in feeds. I wanted a system that pulled back the feed costs without impeding fertility or health. Too much emphasis had always been put on milk yield, which now seems a very ineffective tactic - as without a focus on costs of production you may still be losing money.

"What was apparent to me was the need to manage my land better - and that meant training myself and the cows in grassland utilisation. The potential for grass to produce profitable milk is high, especially in Cumbria. Yet, I feel, as dairy farmers, we still have a lot to learn. I joined discussion groups,

researched on the internet and used industry advice to set about a whole new farm approach of a milk from grass system, with a move towards spring block calving and a minimum margin of 10ppl.

"To be honest, many people advised me against it, and I was aware it was a big challenge to transition to such a different system, but I had complete belief in this being the best way forward for our business in the long term. The discussion groups in particular, were invaluable – they got me talking to people working in the same direction and positive about what could be achieved. It was so encouraging and really helped me. To this day I still keep in touch with this group and we share information and knowledge, so we can improve."

In the five years since the cows were turned out, in April 2013, Richard has strived to improve grassland. "I am always learning, but now am a little obsessive! It's all about residues and ensuring grass is at an optimal length to provide nutrition and regrowth. I use a plate meter every week to measure grass and calculate grass yield. It's the most valuable hour per week I spend on the farm. We cut silage depending on grass allocation for the cows, and because we have the flexibility of having our own machinery, this can be up to nine cuts a year - basically taking out the surplus grass from our rotations.

"I've also focussed on breeding a cow that works for this system. We had quite extreme Holsteins, which are inefficient at converting feed, and were not bred to last. I wanted a smaller, functional cow that was low maintenance, and produced milk profitably. We crossed the Holsteins to Jerseys and, within just a short time have seen drastic improvements. They're aggressive eaters, deep bodied with capacity for

forage, and just keep going with no fuss.

"I am on a solids contract with Yew Tree with no seasonality, so the spring calving works well and the cows peak when the grass is at its peak. So understanding how best to get milk from that grass is absolutely key to profitability. Having come from an indoor system, I've also noticed how the cows seem less stressed post calving and peak lactation which has shown in mastitis and general animal health.

Today, Richard, along with brother Michael, dad Chris and mum Mandy, successfully manage a system that aims to maximise milk from grass. All forage is now home grown and so far concentrates have reduced to around 1tonne per head, down from 3.5t at its peak. "I still want to reduce concentrates, I want to focus on soil management, and I want to get a system that uses the most effective varieties for the farm - but this will take time. I do believe though, that given the opportunity of more land, I could grow grass well, and I couldn't have said that a few years ago.

Daniel Turnhout, Farm Solutions Manager for LIC, who works with Richard adds, "Richard is an ambitious and progressive farmer who is always looking to improve his business. It's been incredible to work with him throughout this transition and now see the rewards. His knowledge on how best to manage his grass has grown so much, and he has the confidence now to make daily decisions that will produce milk at a very low cost.

"I think many farmers can learn from Richards experience and even if they do not choose to extend their grazing season as much as him, they can learn how best to manage their grassland to increase milk from grass - which in the UK, is the most profitable feed available."

Autumn breeding tips from LIC's Tim Bunnett

What a challenging summer we've had, with extremely dry conditions, and a shortage of grazing everywhere. As the grass turns green again, we can turn our focus towards the key autumn breeding

season, now fast approaching.

Start off by asking yourself about your breeding goals for this year... in other words, what cows do you want to be

milking from 2021?

While farmers may differ in opinion on what the ideal cow looks like, most will agree she needs to be an easy-to-manage cow that will efficiently convert grazed grass into milk production. As most autumn calving herds will have winter milk bonuses, a cow that can make the most of both pasture and concentrate feeding is ideal.

Four important cow traits come to the fore in an international comparison looking at efficient milk production that reviewed NZ cows against North American, some work done by a student directed by Joyce Vooqt, a



qualified vet and LIC's international technical manager.

1) Milk Composition: regardless of feed supply, NZ cows yield milk with higher milk solids composition. For farmers, this means a higher return (milk price) with many buyers moving towards bonuses for higher fat and protein levels.

2) Cow BCS: (body condition score)
Cows which maintain body condition
through lactation incur less feed costs to
regain their condition through the more
expensive winter period. In addition,
there's a good correlation between
BCS maintenance and fertility. Body
condition retention is included in the
selection of New Zealand genetics for
efficient feed utilisation

3) Liveweight: On your farm, is a cow yielding 8000 litres more profitable than one yielding 10,000 litres? The bigger the cow, the more feed she requires for maintenance. Introducing a cow that's able to produce a substantial quantity of litres with higher solids should provide the best of both worlds. Therefore, in the critical area of farm profitability, LIC CFP data will show the herds that harvest the most grass are more profitable – the aggressive grazer – returning an extra 0.19p/litre to 0.20 p/litre. New Zealand cows are bred for efficiency of production per kilogram of liveweight.

Genetic gains shown in LIC NZ bred bulls, have shown milk solid production has increased on average, over all breeds, by 21kgs of milk solids, for minimal additional liveweight (5kg) over the same period. These smaller highly efficient animals have reduced

feeding requirements, so are central to a resilient herd.

4) Fertility: Fertility results demonstrate that NZ cows have a shorter calving interval and better six-week pregnancy and conception rates. Maintaining high reproductive efficiency is central to LIC's breeding programme across all breeds.

Start now to develop a herd that will effectively harvest and convert pasture to milk

The first steps that LIC recommends are:

- Employ an effective culling programme; which cows would you like more of, and who would you rather see aone?
- Define the breed and performance characteristics that you're looking for.
 When you're selecting a sire, make sure he will bring those characteristics to your herd;
- Mate heifers 10 days ahead of the main herd to give them extra recovery time after they calve, so improving their opportunities into second and third lactations;
- Choose and rear the best replacement heifers - and make sure you choose early so you know your investment in rearing is going into the best calves for the future. It's exciting watching those healthy calves grow, knowing the figures back up your choices;
- Closely monitor animal health.
 Farmers understand the value of a healthy well-managed herd as part of a successful breeding season.

How do you know which are your best cows?

It's essential to milk record a minimum of four times per year, with the first recording no more than 65 days after the planned start of calving. Spread the remainder of the tests equally across the rest of the lactation of the cow. Building up information across multiple lactations will help boost your ability to improve your herd.

As you look to choose which heifers are coming into your herd, you need to be certain that, as a group, they'll be better than their mothers. The average difference within UK herds between top quartile cows and the bottom quartile on production is between 160kgMS and 200KgMS, and the incoming first calving cows mirror their mothers for the range of quality.

LIC New Zealand's bred bull team is backed by daughter performance data which includes at least one full lactation in NZ. The reliability of this information gives us confidence that the sires LIC markets in the UK have proven outstanding genetic merit to meet individual needs of pasture-based farmers.

What role does fertility have to play?

Poor reproductive performance can be a handbrake on farm profitability goals. Therefore, the key is to recognise that the type of cow you're milking fits the system. Here crossbreeding can be your friend, with mounting evidence that in a grass-based system the crossbred cow has a higher survival rate as well as better reproductive performance.

Days in milk is the main driver for improved milk production. Top reproductive performance not only gives you more early season days in milk, it also allows you to apply greater selection pressure to the cows you cull, the calves you keep, and the bulls you use.

The current NZ all breeds calving interval is 368 days, compared to the UK cow with a calving interval of 400 plus days.



From both sides of the fence... both investor and farmer

A unique opportunity to set up an investment company, ARC Farming, to grow a 100-cow milking unit to a 350-cow unit over the next 12 months, has given Chris North a chance to take 33 per cent equity in an exciting organic business where low cost production is the key to profitability and riding the volatility of the global milk price.

Chris decided he was going farming when he was 12, and going to Harper Adams when he was 13, and by 16 he was relief milking and looking after farms while the owners went on holiday. He started to work with Adam Boley at his Titley unit who are in partnership with Richard and Chris Norman from The Leen - this year's RABDF Gold Cup winners. So, it's testament to his ability that led Adam, Richard and Chris to expand the ARC Farming business, giving him a unique opportunity to both manage, and be an equity partner, in the new farm.

"I've been incredibly lucky to work with some of the best dairy farmers in the country," says Chris. "They didn't want me to leave the business, but I was certain I wanted my own opportunity to farm and build equity. This partnership meets the criteria for us all." The three partners are still deciding exactly how the equity will be split, but the aim is for three equal thirds covering all the livestock and investment in the business... with them all becoming genuine partners in everything.

The farm needs to carry more cows to make the most of the available land, 240 ha, and Chris is certain that stocking rate, and investment in new buildings so the farm is fit for purpose, will be key to hitting the low-cost production targets. A new 36 aside parlour, and new cubicle buildings, are planned for early Spring, and Chris has been busy buying organic heifers and cows that will join his herd.

"Today you need economies of scale. I've been looking at opportunities for a long time and gone a long way down the road with different options. But every farm I looked at was having to have 300-plus cows to meet costefficiency targets. You have to be able to still be in profit when the milk price falls, so low cost production is definitely the way to go."

The new parlour will be run by a staff of two on a daily basis – and with three people already employed to milk the current 100 cows, there'll be no extra



CHRIS NORTH Ruddle Court Farm, Newnham on Severn, Gloucestershire

staffing costs yet more efficiency. Chris was also keen to match the capital investment with the length of the tenancy (25 years) and pointed out it was easy to over-capitalise.

"These days it's very important to get your whole costing structure right," he said. "This whole approach is giving me access to some of the best brains in dairy farming, while allowing me to build my own equity in an exciting business. The future looks very bright."





Fertility, cost of production, output and utilisation of grassland per hectare are the key profit drivers in a grass-based system. But, an autumn calving cow, that we want to serve in November, has additional challenges presented by deteriorating weather conditions. She's at peak milk production with a high energy demand - and we need to get her pregnant.

Autumn grass is high quality, but doesn't quite feed like spring grass, with Teagasc putting a higher value on spring rather than autumn grass. When we introduce silage in the autumn, grass utilisation and residual is compromised, as the cow turns her attention to the trough. Studies have shown that as you increase grazed grass in the diet, cost of production reduces, but the real reduction comes beyond 50% of the diet as grazed grass.

Some would say she should come in post calving on a fixed ration that can be controlled, or that a significant part of her diet needs to be silage and that grazed grass is not enough to provide sufficient levels of dry matter and energy.

This is missing a trick, and adding cost to the system. Utilisation of grazed grass is not just about replacing expensive feed with cheap quality grazed grass... there's also the cost of housing a cow (slurry, putting feed out, cubicle care - labour, machinery, diesel and bedding), so the longer we can keep her out, without fertility and production being compromised, the better.

Right across the country I see growth rates accelerating away from demand

in the autumn with average covers rising and, as such, entry covers accelerating. Over 3000kg DM/ha leads to poor utilisation, lower quality, slower regrowth and lost potential.

For example, in the first week of September low demand per hectare 25, growth 55 and as such +30 per day on average cover, 30 days in September, that means +900 to the average cover meaning average cover could easily be 3000kg DM/ha, with entry covers well in excess of this figure. This means poorer quality, poorer utilization, and extra pressure on cows. Rising covers to extend the round for spring calvers works well, but they are PD+ and at the end of lactation.

So what's the solution? Managing average cover early, do we need a second balance day in the autumn? At balance day in the spring, our average covers are low to take account of large growth coming, so why don't we take average cover low in early part September by being aggressive with taking out the surplus (baling) and bringing average cover down to 1800? Then, as growth moves ahead of demand, we're coming back to average covers of 2100-2200.

As such our entry covers can be 2600-2700 so quality is definitely at the top, hitting residuals are achievable even on wetter days, and any shortages of dry matter are accommodated by concentrate to avoid the 'trough addiction'.

There's less waste, and regrowth is not compromised - something essential when we want to grow as much as we

can for spring 2019. I would suggest we get around the whole platform by end of October/ early November so it's all set for spring and keep average cover at 2200 +/- 100 all the way through to closing.

Some question whether high covers and poorer residual matters in the autumn. Well, I'm told 'no' by some who say 'when autumn calvers go out in the spring they'll eat anything, so can reboot the system and get it all going again'. Yes, this is probably true, but:

- That rejected residual/high cover from the autumn is of lower quality than good autumn / winter regrowth, why would you want to feed any milking cow substandard feed?
- High covers will slow regrowth and what an autumn herd has in the spring is high demand and so slow regrowth is an anathema;
- Grass grows grass, so once it's grazed it's growing again;
- Poorer feed quality and slow regrowth line the feed salesman's pocket not yours.



PIERS BADNELL

My final thoughts

- A farmer with an autumn calving herd and very good figures recently said to me 'Is the autumn cow any different to the spring cow? No. 'We're trying to get as much quality grass into her as we can, so the only difference is we calve at a different time...'. How true I thought.
- There's still plenty of time to take quality silage in September rather than stodgy wet bales in October.
- Use your own figures and work it through grass growth from previous years data or AHDB Dairy Forage for Knowledge, your demand from cows calved and how much grass to budget them.
- Prolong as long as possible the feeding of silage.
- Aim for as large a % of grazed grass in the diet as possible to reap the rewards.

What to look for in an autumn calving team of bulls

Autumn block calving is becoming more popular with farmers, according to an AHDB survey, with 11% of herds on this system compared to just 2% in 2016.

When you look to breed a herd that will provide reasonable volume, offer high solids, and an ability to calve down in a 10-week block, LIC is introducing two teams for you to consider:

• High production Holstein/Friesian team

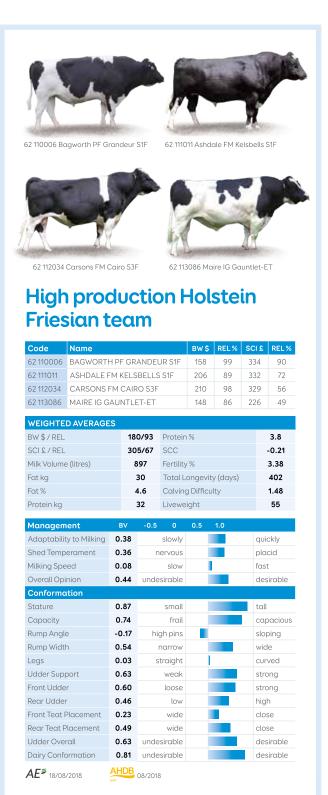
High reliability bulls, bulls that have highreliability for passing on their traits, offer great milk volume coupled with high solids for both crossbred and pedigree cows. Additionally they offer longevity, easy calving and good fertility

• Autumn team with crossbreeding options

These younger bulls with a cross breed option provide a great opportunity for farmers who are considering outcross options as well as introducing the advantages of hybrid vigour into the herd, Again these will offer high fat and protein, an average of 8.4%, and what LIC is known for... high reliability.

Any member of our sales team will be happy to help with your selection and order. Keep checking our Facebook page @LICintheUK for updates





Personal development is key

Robert Craig, who farms with his wife, Jackie, at Cairnhead Farm near Carlisle, Cumbria has transformed his business over the past 20 years, transitioning from what was heading towards an intensive high yielding pedigree Holstein herd to a grassbased, extensive system backed up with New Zealand genetics.

In addition to this change in approach to efficient milk production, the home farm has also expanded significantly, from 50 cows in 1985 to 460 on this home unit with an additional 550 at Dolphenby, a joint venture near Penrith in the Eden Valley. "We're also currently in the process of taking on the tenancy of Peepy Farm near Hexham in Northumberland, which will carry a further 500 milking cows," explains Robert.

"This wouldn't be possible without reliable and qualified staff - they're absolutely key to my farm business performance, as any other dairy farm business. However, if I want to attract and retain good people, it's important to step back and ask myself why someone would want to work for me.

"As an industry, we need to do this

much more effectively. We're well represented, but I feel we lack focus on industry branding. We need to promote careers in the industry and sell the positives of a job in a farm

"I think Brexit has been a wakeup call for us all. More than 55% of dairy farm businesses rely on migrant labour (RABDF survey) and the future remains unclear for this option. For business security we need to work to recruit from the UK work force, but understand it's a very competitive marketplace.

"From an individual business perspective, it's important to have defined goals that you or your staff can work towards. Set clear expectations and ensure clarity of responsibilities. Set up mechanisms that enable you and your staff to communicate. I think some of this comes with experience, but also know what type of person you want in your business - respectful, conscientious, shows initiative, and so

"I work with employees to agree personal development programmes. If they want to go on training courses, and attend industry events, I work



ROBERT CRAIG

with them to offer this. I also offer scholarships to New Zealand, which give a valuable insight in to what I want to achieve and how to get there. It's important to invest in staff.

"Due to expansion I'm currently recruiting and have found that I attract much more interest if I state the pay range. Also, I'd encourage more employers seeking staff to embrace the benefits of social media - it's free, you have the control on the wording and you reach, potentially, a much bigger and more qualified audience."

LIC UK - Sales Team

IAN FOSTER

Regional Solutions Manager North P: 01565 653920 M: **07974 194 344** E: ifoster@liceurope.com

SALLY POCOCK

Regional Solutions Manager South M: 07775 448304 E: spocock@liceurope.com

RICHARD FRANCIS

North Wales P: 01490 413647 M: 07825 773507

E: rfrancis@liceurope.com

DANIELTURNHOUT

Cumbria, Lancashire, Yorkshire & Scotland

M: 07966 090848

E: dturnhout@liceurope.com

EMYR BROWN

Central England, Ceredigion & South Wales

P: 01239 654516 M: 07787 446839

E: ebrown@liceurope.com

LIBBIE HARRIS

Central & Southern England, Wiltshire, Somerset & West Wales

M: 07 773348101

E: eharris@liceurope.com

JENNY ENO

Cornwall & Devon M: 07787 408824 E: jeno@liceurope.com

Email: admin@liceurope.com | Tel +44 (0)1725 553 008 www.licnz.com/uk.cfm

f Facebook: @LICintheUK 📗 🗾 Twitter: @LIC_UK_Ltd

Pasture to Profit Consultants

LIVESTOCK IMPROVEMEN

PIERS BADNELL

South Wales & Southern England M: **07970 682798**

E: pbadnell@liceurope.com

BESS JOWSEY

North England & Scotland

M: 07717 732324

E: bjowsey@liceurope.com

SEAN CHUBB

Central England M: 07833 228501

E: schubb@liceurope.com