

SOUTH EAST Farmer[®]

Est 1982

February 2014

**THE REGION'S
FAVOURITE
FARMING TITLE**

Serving farmers and growers

**BERKSHIRE | BUCKINGHAMSHIRE | ESSEX | HAMPSHIRE
KENT | OXFORDSHIRE | SURREY | SUSSEX**

Fracking is a “disaster” for farming

Farmers and landowners are being warned to prepare for an onrush of drilling on or under their land as the dash towards fracking for unconventional supplies of oil and gas continues.

With rock below South East farmland containing some of the biggest unconventional oil and gas reserves, farmers can expect a deluge of planning applications for test drilling on their land.

But campaigners against fracking – who have already made their mark during protests against test drilling at Balcombe in West Sussex – warn that the infrastructure involved in fracking could end up destroying the countryside. There is also a risk that aquifers holding large reserves of water below the surface will be polluted by the fracking process.

“Fracking is a complete disaster for farmers,” said Sue Taylor, vice chairman of Frack Free Balcombe Residents Association (FFBRA), which has just sent evidence to a House of Lords committee investigating the fracking industry. “They have not been properly informed about something which has the potential to damage their livelihoods and land values.”

Miss Taylor is a Conservative but she has called on David Cameron to leave the party. “He said this would be the greenest government ever. But now he is pushing something which he

Continued on page five



Photo: Randi Sokoleff/Shutterstock.com

Ground breaking TB test and vaccine

Scientists are working on a new skin test for bovine TB which will work with a cattle vaccine.

At the University of Surrey, they are working on a three year project to produce a cheap skin test and vaccine which can be used in India, where bovine TB is even more serious than it is in the UK.

If the project succeeds, it is hoped that the test and vaccine can be used in the UK. Currently, the UK skin test picks up about 80% of bovine TB cases in cattle. There is also a BCG vaccine which could be used on cattle. But DEFRA has argued that European Union law prevents the vaccine being used because it spoils the current skin test's ability to detect infection.

To improve the sensitivity of testing in England, a gamma interferon blood test has been used in

certain circumstances since 2006. But the gamma interferon is a laboratory based test and would be too expensive for India.

“Our project was predicated on thinking about the situation in India,” said John Joe McFadden, professor of molecular genetics at the University of Surrey, who is leading a team funded with £676,509 for work in the UK and £305,208 for work in India. The money comes from the Biotechnology and Biological Sciences Research Council in the UK and the Department of Biotechnology in India. The team includes experts from Surrey, DEFRA's Animal Health and Veterinary Laboratories Agency and the Health Protection Agency, as well as academics from two Indian institutions.

In the UK, cattle which are positive on the skin

Continued on page five

Does your
farm and farmhouse
pass the IHT test?

batchellermonkhouse.com

Contact Leo Hickish FRICS MBIAC
01892 509280
l.hickish@batchellermonkhouse.com

**Batcheller
Monkhouse**

BE PREPARED FOR FRACKING BATTLE

We are not interested in the pros and cons of fracking just to have a pop at the government – even though it's strange that a prime minister who said he would lead the greenest government ever is now so much in favour of an industry which could harm our countryside for a very long time. No, we are interested because farmers have heard nothing about fracking from DEFRA – which is supposed to inform them about these things – or the traditional farming organisations such as the NFU and the Country Land and Business Association.

They are probably keeping quiet because they think their members can make a few quid out of something which the government is proclaiming as a big driver of economic recovery and a fossil fuel which will close the energy gap left by declining reserves of oil and old coal fired power stations being switched off.

Perhaps the NFU and its followers should have a look at what happened to Mohamed Al-Fayed, the famous businessmen who found out that Star Energy was drilling under his estate. After a lengthy court process, it was established that although Star Energy had trespassed, the amount of compensation due to Mr Al-Fayed was only £1,000 – a pittance in the circumstances. This is almost a blank cheque for an energy company to carry on with the trespass, knowing that any reserves of fuel will more than pay for compensation. Of course farmers can sign a contract allowing energy firms on to their land to drill, but the rent involved will still be tiny in comparison to the gold mine awaiting the energy company if fuel is found.

So there doesn't seem to be much in fracking for farmers attracted to the financial rewards. Indeed, farmers and landowners who do invite the frackers in face opposition from professional protesters, villagers and others – as Simon Greenwood, owner of the Balcombe Estate in West Sussex has discovered. Just in case there is any doubt about this, here is an extract from a submission by the Frack Free Balcombe Residents Association to a House of Lords committee examining fracking. "We are teachers and academics, plumbers, accountants, joiners, journalists, artists, farmers, engineers, lawyers... Balcombe village polls have shown 80% of our community to be against Cuadrilla (the company trying to drill on the estate). The company has no social licence to be in our village."

Surely this is the point. Lined up against fracking are organised, well educated and in many cases wealthy people who just don't want this in their back yard. They're not lefties, anarchists or left over hippies. And it's not just West Sussex. This is happening in Wales, the West Country, Lancashire and the Midlands. In the course of researching our articles, South East Farmer spoke to a chartered engineer in Wales who is protesting with farmers aghast that a piece of land in the middle of their patch has been bought to let a fracker in.

In Balcombe during January, the renowned French activist, MEP and sheep farmer Jose Bove warned David Cameron not to over ride democratic rights by letting the fracking companies have everything their way. If he doesn't listen, the coalition will be punished in next year's election and our treasured English countryside will be the setting for an enormous revolt.

Email your views, letters or opinions to:
newsdesk@southeastfarmer.net
or write to the address on page 3

SOUTH EAST
Farmer



Biofuels boom outstrips bees

Farmers' demand for pollination services has grown about five times faster than the number of honey bee colonies across Europe.

Research at Reading University has found that the boom in biofuel crops across the continent may be leading the soaring demand. And although other pollinators such as bumblebees and hover flies may be making up the gap in honeybee numbers, the data is not reliable enough to be certain.

Even though honeybee colonies rose by 1.8 million in the five years of the study between 2005 and 2010, this was not enough to keep pace with biofuel crops such as oilseed rape which increased by a third in the 41 countries looked at over the same period.

"There was a 5% drop in honeybee numbers in that time," said Dr Tom Breeze, who took part in the study. "The number of honeybee colonies did not rise enough across Europe. Even if you pool all 41 countries across one integrated area, you would only have two thirds of what were needed to pollinate the crops."

Dr Breeze emphasised that a lot of countries do not report reliable honeybee data. "Good data came from the UK and Turkey, for example, but the data from Austria and Italy was not so good. Moldova, one of the poorest places in Europe, has one of the best ever data sets. But

the data from Spain was a nightmare to extract!"

Speculation has grown in recent years that honeybees could be in decline because of a combination of factors such as harsh winters and colonies infested with the varroa mite. But Dr Breeze said it was hard to know what impact these were having because of the lack of long term data. "Professional bee keepers in particular will be replacing colonies and many will be interested in producing honey so will not put their hives anywhere near a crop."

There is also a lack of data about populations of wild pollinators which may be filling in the gap left by honeybees. "We know that the more common bumble bees and solitary bees have become more widely distributed across the country but they are not necessarily more abundant."

Research published in 2012 showed how essential pollinators are for a good crop of oilseed rape. "Properly pollinated rape will provide an extra 30% output for the market," said Dr Breeze. "The crop produces more pods and the oil is lower in chlorophyll which makes the quality purer and better for refiners." Work already published by Dr Breeze's colleagues at Reading and reported in South East Farmer has shown that properly pollinated apple orchards produce more class one fruit which sells for a higher price.

“Ground breaking” continued from front page

test are shot and the farmer compensated. In India, cattle cannot be shot for cultural reasons and have to be isolated. A vaccine is even more essential in this situation to stop the disease spreading.

Professor McFadden said the core of his team’s work would involve subtracting about nine proteins from the BCG vaccine and adding them to the skin test. As a result, the test should only show a positive result if infection with bovine TB was detected.

For farmers, the key question is how long it will be before the new test and vaccine is ready. In the past, UK governments have said a new vaccine is between 10 and 15 years away – only to keep on moving the target date

as the years roll forward. Within the project’s three years, Professor McFadden said he hoped to have proof that the knock down BCG vaccine protects against bovine TB. “We also want to do experiments on guinea pigs and cows to show that the test works.” Then the team will apply for more money to run trials on a reasonable number of cattle in India at a much lower cost than this could be done in the UK. “We have to ensure the new test can distinguish between bovine TB and the knock down BCG vaccine and that the new vaccine is as good as the original one,” Professor McFadden explained. “That has to be done on cattle.” He estimates that the new vaccine and test will be ready for use in cattle by 2020.



Photo: The Beef Checkoff

“Fracking” continued from front page

does not understand the implications of. And how dare he say that regulation should not stand in the way of this industry?”

Because farmers own much of the land which the oil and gas companies need for fracking, the farming industry is right in the front line, said Miss Taylor. She insists that fracking or hydraulic fracturing – which involves drilling and forcing a high pressure water mixture into rock to release gas – is a brand new process in the UK. “The only place where it has been done so far is Lancashire, and we have a letter from the Department for Energy and Climate Change to prove it.” The company which fracked in Lancashire is Cuadrilla, the same company doing test drilling on the 3,500 acre Balcombe Estate – much of which is farmed – in West Sussex.

By talking to Miss Taylor and others about fracking, South East Farmer has found:

- although farmers can refuse to sign leases to let oil and gas companies on to their land, they will find it harder to stop those companies drilling horizontally under their land from somewhere out-

side their boundaries.

Ownership of all petrol and natural gas lying anywhere underground in the UK was “vested in His Majesty” by the Petroleum (Production) Act 1934. Subsequently, the government granted licences on the Crown’s behalf to companies wishing to exploit oil and gas resources, with licence holders entitled to compulsory access powers if they cannot negotiate with the owners of land they need to find the reserves.

Just how far landowners could go in defending themselves against unwanted drilling was tested in a 2010 case involving Mohammed Al-Fayed’s company Bocardo SA, which appealed to the Supreme Court against a decision to award nominal damages for trespass against an oil company which drilled without permission underneath Mr Al-Fayed’s Surrey estate. The court confirmed that compensation for landowners who suffer trespass from oil exploration should be evaluated in the same way as cases of compulsory land purchase. In other words, any damages would be very limited;

- the number and density of the wells required to extract unconventional oil

Farm faces fracking ruin

South Downs farmer Beki Adam says her business will be ruined if fracking is allowed to go ahead across East and West Sussex.

“Our biggest income is from rural tourism which will be blighted by all the wells, lorries, flares and pipes which go with this industry,” said Ms Adam, who helps her partner run 54 acre Chantry Farm with its spectacular eco camp which has far reaching views across the Weald.

Although the nearest two test drill sites – one of which is Balcombe – are 20 miles away, Ms Adam is under no illusion about the extent of the wells and other infrastructure once the fracking industry takes off. “The planning applications which have gone in to date for exploratory drilling are not showing people that if the companies are to extract shale gas, they will have to have enormous wells all over the place.”

Exploratory drilling can end up damaging aquifers by punching a hole through them

to reach the unconventional reserves deep beneath. “The only way to stop chemicals and other pollutants escaping into the aquifer is by ensuring the well casing is completely safe – and no one will give a guarantee that they will last for a given time.” If fracking starts in five years, the industry will only have a few years to run before the UK is faced with the date for complying with binding European Union targets to cut carbon and control climate change. “To proceed with another fossil fuel industry which adds to carbon pollution is mad. We will be left with unwanted fracking infrastructure all over the countryside.”

Ms Adam is urging farmers to talk to their lawyers and establish what their property rights are in the face of unconventional oil and gas exploration. “The government has already said it will review the law to see if it can make it easier for companies to explore under people’s land.”

and gas is enormous. In an area of Pennsylvania called Bedford County in the United States, some 2,000 wells were drilled between 2008 and 2012. It is estimated that East and West Sussex are 80% of the land area of Bedford County, and that 2,400 wells could be drilled in the space of four years;

- in the Vale of Glamorgan, farmers have been left desolated after a patch of land in the middle of their farms was sold to someone who is interested in drilling. Because they rely on bore holes into aquifers to water their livestock, they are terrified of the pollution which may come from fracking. The process has the potential to set farmer against farmer in this scenario.

The Weald of Sussex is the second most prospected area for unconventional oil and gas in England. Simon Greenwood, who owns Balcombe Estate, backs fracking and has allowed Cuadrilla in. Not far away, his cousin Lord Cowdray has turned down an approach from Celtique Energie to do exploratory drilling on his 16,000 acre estate, which includes farming operations.