

Questions and Answers: Teagasc Research Insights webinar series  
*Making the most of our land (2 December 2020)*

#	1
Question	Is green or orange suitable?
Answer(s)	Orange is unsuitable – Green is suitable

#	2
Question	For Niall Farrelly - Does the 820kha of land include existing forestry? And if so, how much?
Answer(s)	No, there is no forestry on this land, it is wet and dry grassland, mineral soils. Existing forestry land was removed in the analysis and is part of the unavailable area

#	3
Question	Why has the grey line on the chart showing area planted increased substantially more than the private and state area?
Answer(s)	The grey line on the chart was the total area planted, it is the additive contribution of the private and state planting over time. It give the viewer an idea of how forest cover is increasing over time. The state planting and the private planting are the two lower graphs and represent the contribution of each sector to the forest cover

#	4
Question	For Ewen M. - what was the gene that was spliced into potatoe to give resistance?
Answer(s)	Vnt1 which is taken from the wild potato species, Solanum venturii

#	5
Question	Is the gene splicing that happened with the potato Desiree, make it a genetically modified organism?
Answer(s)	Yes, it was produced through an engineering approach

#	6
Question	Ewen Mullins - Does the splicing of DNA make these potatoes genetically modified
Answer(s)	Yes, it was produced through an engineering approach

#	7
Question	Do you think agroforestry (particularly silvopasture) is a viable land use option to mitigate and adapt for climate change while continuing to produce animal products?
Answer(s)	Yes, but the ambition is modest. The ability of forests to sequester carbon is based on their growth and yield and area planted. Agroforestry is likely to

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	<p>deliver ecosystem services to pastoral system – biodiversity and structural diversity – provide animal husbandry and /or water protection. If you were looking for a system for CC mitigation only you would look for production, utilisation of timber products and fossil fuel substitution to deliver maximum benefits. The trees in an agroforestry are likely to grow slower and be less dense so their impact on CC mitigation is smaller, however if Agroforestry coincides with a reduction in stocking numbers it would likely have a larger impact.</p>
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<b>#</b>	8
<b>Question</b>	<p>Ewen mentioned in his talk that his group used "splicing" to genetically modify a potato variety, var disere? Can European producers grow plants or rear animals that have been spliced to reduce their environmental impact? Thank you</p>
<b>Answer(s)</b>	<p>In regards to plants, technically yes, but this requires breeding companies to submit an application to the E. Commission to have the crop assessed under EU regulations. This can take several years and is costly which is an impediment to the process.</p>

<b>#</b>	9
<b>Question</b>	Ewen: How open are farmers in Ireland to growing GM crops?
<b>Answer(s)</b>	~60% potato growers are willing to grow blight resistant potatoes

<b>#</b>	10
<b>Question</b>	Elodie: Is there a downside to increasing the clover proportion in grass? It seems like a simple solution!
<b>Answer(s)</b>	<p>Implementing clover on farms is not as straightforward as it could seem; once implemented it needs to be properly managed to persist on the farm - for it not to disappear.</p> <p>Clover is definitely one of the solutions for the future and more research is being conducted to help its implementation.</p>

<b>#</b>	11
<b>Question</b>	For Nail, which type of land-use have been afforested in the recent years in private lands and what is the trend? Only grasslands potentially will be converted in forestry?
<b>Answer(s)</b>	<p>I don't have the previous agricultural land use information to hand. Perhaps it is land where there is less opportunity to diversify into diverse farming systems owing to physical limitations of soils and topography or in some cases where motivations for planting may be environmental reasons or due to unique personal circumstances.</p> <p>Lands must have evidence of being able to grow a commercial crop of timber to yield class 14 or equivalent to be eligible for state aid and adhere to codes of practice, environmental guidelines, etc. The eligible land for planting are outlined in the Land classification of afforestation published by the Forest</p>

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	Service. Certain lands are not eligible for grant aid (exposed areas, rocky soils, protected habitats, etc.).
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	12
<b>Question</b>	Is the vnt gene of potatoe origin, if so could it be crossed in, and how long would that take?
<b>Answer(s)</b>	Yes, it can be crossed through traditional methods of pollen transfer but the problem with that is it will take at least 13 years to get a variety and that material will still have traits that would be introgressed from the wild plant species that would decrease the consumer/farmer use. As such, a more precise method is required to just target the gene(s) of interest to in effect accelerate the breeding process