

2017
WHERE INNOVATION MATTERS.
12-18 NOVEMBER HANOVER, GERMANY PREVIEW DAYS 12/13 NOVEMBER

Harper Adams University is renowned for work in the agricultural engineering sector, constantly looking to innovate and advance technology. On Sunday 12<sup>th</sup> November nine students in the final year of their MEng degrees went to Agritechnica as part of their 'Evolving Engineering Topics' module to be inspired by new agricultural engineering products.

As students opportunities like this help massively to develop our understanding of how theories taught in the classroom have been applied to real products; not only this but we also learn more about the fields of engineering that we would like to have careers in and make contact with the companies that can help us achieve these goals.



## Liquid fertilizer injector system

Most systems utilize a crop sprayer to apply liquid fertilizer. However, this machine was different. It combines the principles of an aerator to inject the fertilizer into the ground as each of the prongs penetrate the turf. This allows the fertilizer to be placed right where the crop requires it as well as aerating the ground.



## **Linder Unitrac**

The Linder Unitrac was a very interesting utility vehicle from an engineering perspective. Linder appear to have spent time turning something fairly innocuous into an exceptionally clever product. The vehicle makes use of many common parts such as the axle is exactly the same front and rear, impressing us both from an engineering perspective and a customer perspective; not only reducing the number of different parts to manufacture but also far less hassle when trying to get spares.

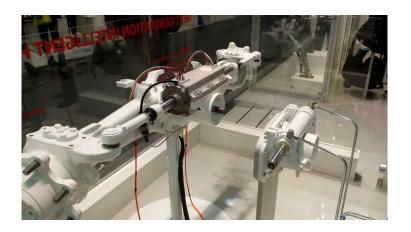
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## **Electrification of components**

Currently in most agricultural and construction applications the most common form of drive/actuation is by shaft or hydraulic power. However the rapid development of mechatronic systems in other industries such as automotive is making it's way across, an example of this was a fully electric steering rack improving both the control and safety of the product.

This brief overview of some of the products that were on display is merely a taste of the vast amount of innovations in which we were able to immerse ourselves at Agritechnica 2017. Each of us has come away with a wealth of new knowledge, excited about the future of the Agricultural Engineering industry and eager to take up their place within it.



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