



# Multi implement farming

## The basics

If you can do two field operational jobs at the same time, you effectively eliminate doubling up on the fixed losses and rolling resistance of the tractor thus reducing energy use by up to 40%.



## In practice

There are many opportunities of using two implements in the same pass, either by trailing the second implement after the first or using an implement on the front of the tractor and one on the rear. This may require some compromises in terms of set-up and speed but it invariably saves time and fuel compared with a multi-pass system.

Some examples of multi-pass operations are:

- Mowing and conditioning
- Ploughing and harrowing
- Seed bed preparation and drilling.

## Case study

Rob Powell from Brecon employs a silage contractor who has the capability of using multiple front and rear mower combinations.



Rob said: "Using multiple mowers on larger fields allows the job to be completed much quicker than with single mowers, which means that we are able to alleviate the issue of changing weather conditions and ever increasing time and labour constraints.

"The fuel savings that are achievable can also be quite significant and I will continue to use this type of operation, where suitable, in future, as it makes good economic sense."



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Using multiple implement application takes some planning and adaptation. The implements that you purchase and the tractor you use must be adapted accordingly. The set-up of a tractor will also be different and you may have to experiment with suitable tyre types, pressures, ballasting and field speed to get the best result.

The outcome of a successful application will be a reduction in fuels costs, labour costs, reduced wear and tear on the tractor and less field compaction – all of which will have a beneficial effect on the business, although a larger tractor may be needed.

## Potential savings

Two examples showing; mowing and conditioning during silage making; and seed bed preparation and drilling, are illustrated in the table below which demonstrate that savings of 24% are possible:



Task	Method	Components	Fuel consumption (l/ha)
<b>Silage</b>	Separate	Mower (2.8m) and Rotary Tedder (5.5m, one pass)	7.8
	Combined	Multiple mowers with conditioner (7.6m)	5.9
			<b>24% saving</b>
<b>Seed sowing - seed bed and drilling</b>	Separate	Seedbed combination (5m, 2 passes), seed drill (3m)	14.8
	Combined	Rotary Harrow with seed drill (3m)	11.6
			<b>20% saving</b>



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