

TO GROW UNDER PLASTIC OR NOT

Complete cover plastic mulch can be used to increase soil temperatures at sowing and speed up plant development in the spring. The plastic is laid by contractors with a special Samco drill to drill the seed, lay the plastic and apply the herbicide under the plastic. Drilling can occur in early April three weeks earlier than non-plastic drilling depending on soil conditions.

PROS for use of plastic	CONS of using plastic
<p>Expands maize growing into areas with insufficient heat units to allow full maturity. Potential for growing grain maize for crimping.</p> <p>Increases grain and plant maturity due to higher accumulation of heat units.</p> <p>Higher starch yields may be achieved.</p> <p>Earlier harvest allows field to be re-sown with winter wheat or grass re-seeds.</p>	<p>Many varieties are not suitable for growing under plastic. The varieties ability to break through the plastic and then achieve a significant benefit for growers is critical.</p> <p>Higher cost of plastic and contract drilling charges Approx £125/acre.</p> <p>Degradability of plastic can be an issue. If late sown plastic may have to be manually slit if temperatures get high.</p> <p>Requires deep, stone free soil to ensure plastic is well buried.</p> <p>Effectively only one chance of weed control. If dry conditions then pre-em control maybe limited. Once the plants are through the plastic they are large and soft. If crop sprayed too early after plant emergence and in warm weather then severe scorch can occur.</p>

Consider growing an Ultra Early variety not under plastic on suitable fields with lower growing costs.



Pin holes in the plastic helps plants to break through. Variety choice critical.



Grainseed Ltd

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Since 2014 the Maize Growers Association have been conducting replicated maize trials under SAMCO film in the UK.

To join the MGA email info@maizegrowersassociation.co.uk

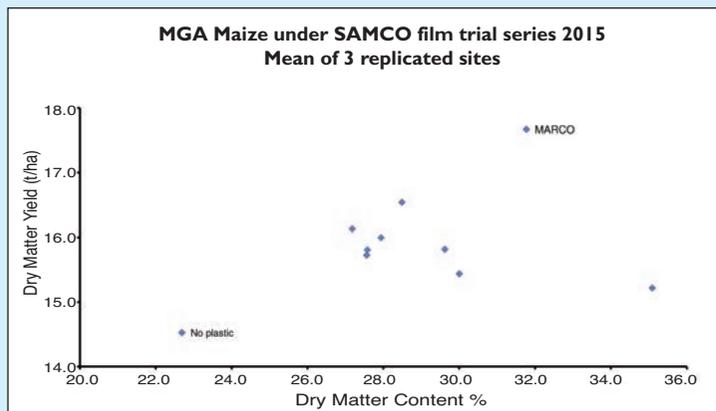
2015 results

	Field Yield (t/ha)	DM (%)	Dry Yield (TDM/ha)	ME (Mj/kg)	ME Yield (Mj/ha 1000's)	Starch (%)	Starch Yield (t/ha)
MARCO	56.2	33.5	16.9	12.1	205	45.2	7.6
Average	54.0	34.0	14.6	11.7	170	41.7	6.1
Non plastic		22.7	14.5	10.6	153	6.6	1.3

In 2015 the MGA plastic trial included a non-plastic treatment drilled at the same time to show the benefit of plastic against non plastic on these locations.

Es Marco produced a high yield at over 30% dry matter on all 3 locations.

Under plastic Marco produces 2 cobs which are fully mature and this increases the starch content of the silage enabling more starch and energy to be grown on each field and ultimately more animal output per hectare.



2017 results

	Field Yield (t/ha)	DM (%)	Dry Yield (TDM/ha)	ME (Mj/kg)	ME Yield (Mj/ha 1000's)	Starch (%)	Starch Yield (t/ha)
MARCO	49.5	38.4	18.9	11.8	223	37.3	7.1
CATHY	55.8	35.7	19.9	11.7	233	36.8	7.3
Average	47.9	38.3	18.3	11.7	214	37.5	6.9

In 2017 the good growing season resulted in higher yields and quality.

Marco and Cathy have the highest field yields in the trial with Cathy having the highest Starch and ME yield too.

