

Here's something you can rely on...

ASTRID

The low biomass oilseed rape



Here's something you can rely on...

ASTRID

The low biomass oilseed rape



Reliable performance, wherever it is grown

The fibrous rooting system of Es Astrid means that it is able to extract nutrients and water efficiently from the soil and so perform whatever the conditions in the field.



Strong fibrous roots on Es Astrid

Its strong rooting ability also means it can survive clubroot attack better than some other varieties.

Reliable high yields year after year

Astrid has been tested in NIABTAG trials since 2005 and continues to be a top performer.



- 2013 104% Highest yielding conventional variety
- 2012 107% Conventional varieties gave top performance in difficult season
- 2011 102% Astrid 3rd highest yielding conventional
- 2010 100% 2nd highest yielding conventional variety

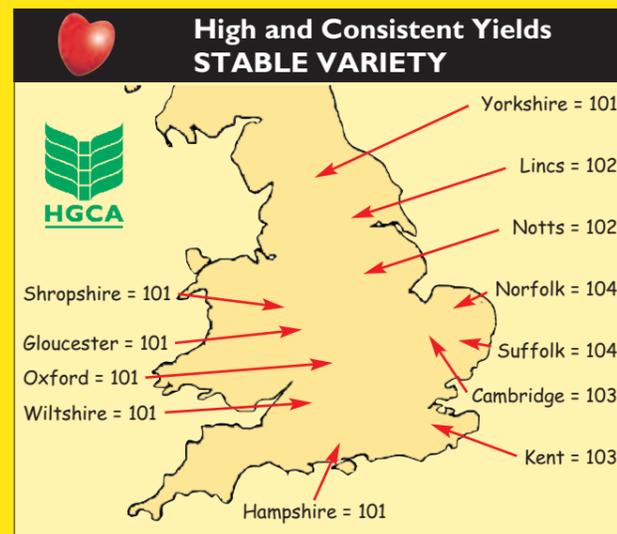
On farm and in trials Es Astrid continues to fill the combine tank at harvest. Many growers exceed 5t/ha with Astrid.

Reliable performance, across the country

Es Astrid yields consistently every year over a wide range of sites and soil types.

- Wherever you are
- Whatever soil type
- However you establish it

Cold spring, dry spring, whatever the season, Astrid delivers.



Source: HGCA RL Plus 2005-2009

The conventional low biomass winter oilseed rape variety Es Astrid has become the variety that everybody can rely upon on farm
Farmers rely on its performance and consistency across sites and years
Agronomists rely on its ease of management and its excellent disease resistance

- ♥ **High yielding Oilseed rape**, year after year
- ♥ **Reliable performance**, wherever it is grown
- ♥ Low biomass for **easier** and low cost management
- ♥ **Maximise** returns with **higher net margins**
- ♥ Very **high Phoma resistance**
- ♥ Reliable, stable **multigene disease resistance**

Recommended by HGCA in 2005 Astrid continues to perform on farm and in trials. In the last 2 seasons Astrid has been the highest yielding conventional variety in NIAB TAG trials with a yield of 104% in 2013 and 107% in 2012, higher than all other conventional varieties and most of the hybrid varieties.



Astrid facts and figures

Treated Yield	100%	Earliness of flowering*	4
Oil Content	43.4	Earliness of maturity*	6
Height	142 cm	Resistance to Light Leaf Spot*	5
Resistance to lodging*	8	Resistance to Phoma Stem Canker*	7
Stem Stiffness*	8	Multi-gene resistance to Phoma	Excellent

*Scale of 1-9 where 9 is the top rating

* HGCA 1-9 rating where 9 is top rating



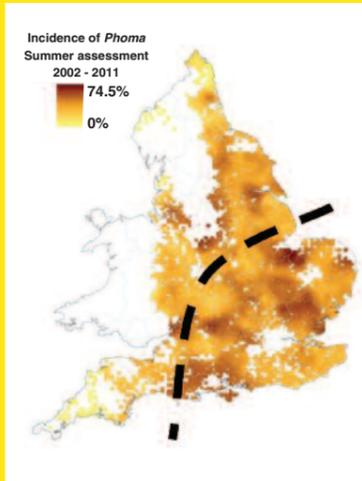
ASTRID

The low biomass oilseed rape



Rely on high Phoma resistance

HGCA rating Es Astrid = 7.0
+ multigene benefit



Phoma stem canker remains the most significant and costly disease of winter oilseed rape, causing premature plant death and yield losses of up to 50%. Yield losses of 0.5-1t/ha are common when control has been lacking.

Growers spray at 10% autumn Phoma leaf spotting.



70% of the HGCA Recommended varieties have a rating of 5 or below. This means in the South and South East where Phoma Stem Canker pressure is high they will require at least 2 fungicide sprays to control Phoma and limit yield loss.

HGCA trials have a robust input program where all disease is controlled.

Farm fungicide usage maybe much lower, increasing the likelihood of yield damaging cankers forming and premature plant death before harvest.

Historic incidence of phoma
60% of OSR is grown in the high Phoma risk area of the UK.
Image from CropMonitor, Food and Environment Research Agency. © Crown Copyright 2013

NIAB TAG advises growers to spray fungicides when 1 plant in 10 shows Phoma leaf spotting. With Astrid's much better resistance NIAB TAG advises growers that the threshold is twice as high and growers don't need to spray until 2 plants in 10 have leaf spots.

Reliable multigene disease resistance

Variety	HGCA Phoma rating (1-9)	Benefit
Astrid	7	
Trinity	[6]	£20 extra
DK Cabernet	5	£20 extra
PT211 (RH)	[5]	£20 extra
Excalibur (RH)	4	
Charger	[4]	
Incentive (RH)	[4]	
PR46W21 (RH)	4	
Troy (SD)	[4]	
Marathon (RH)	[3]	£20 extra

Es Astrid remains one of the highest rated Winter oilseed rape varieties for Stem Canker. This high multi-gene resistance reduces pressure on early autumn Phoma sprays.

According to Dr Faye Ritchie of ADAS an HGCA rating 7 or above significantly reduces the need for a fungicide.

Each HGCA disease rating is worth £20/ha to growers. Improved disease ratings improves flexibility for Phoma sprays



ASTRID

The low biomass oilseed rape



Rely on easier and low cost management

Early drilling, fertile soils, organic soils

The benefit of Low Biomass varieties like Astrid are maximised for early drilled crops in August, on fertile clay soils and on organic peats where growth of hybrids and non Low Biomass varieties can be massive.

Keeping crops standing for ease of harvest, evenness of maturity and reduction in pod diseases saves time, money and stress.



Every harvest the reason to drill Es Astrid is easy to see from the combine seat. It yields well, performs across the farm and is quicker and easier to combine.



Claas Lexion 580 uses 50l/ diesel hour

Benefit of Low Biomass

- Air flow through canopy reduces disease
- Better standing and lodging resistance
- Faster dry down at harvest
- Less shedding or sprouting
- Less volume of plant through combine increasing hectares harvested by up to 25%
- Less stubble to incorporate
- Less trash to feed slugs

Faster work rate at harvest reducing stress on man and machinery and saving costs, particularly on diesel.

Rely on easier and low cost management



Astrid flowers evenly and matures early.

Many new varieties are very late to harvest clashing with the harvesting of winter wheat causing a dilemma if the harvest is delayed due to rain, do you cut oilseed rape that's shedding out of the pod, or harvest quality wheat's whilst the grain quality is good?