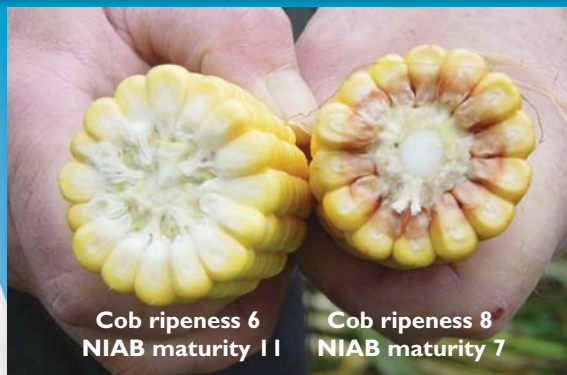


COB RIPENESS

TRUE MATURITY








Cob ripeness is the field indicator farmers use to see if maize crops are ready to harvest, it is a measurement of the speed of starch lay down and grain maturity of the cob in different maturity groups. NIAB maturity groups are determined through whole plant dry matter and do not take into account the true grain maturity. Many varieties appear to have good NIAB maturity ratings but gain that through rapid plant death and not true cob maturity.



To maximise the digestibility and feed value of your maize silage you should aim to harvest when the cob is firm with only the slightest drop of moisture able to be squeezed out of the grain with the plant itself still having some green leaf present.

When a variety with poor cob ripeness is grown in an area with lower available heat units, there can be a noticeable delay in grain maturity, reducing crop dry matter, starch content and feeding value of the silage. Always grow a variety with proven cob ripeness.

Cob Ripeness

Grain Description	Clear Grains	Milky Ripe	Soft Dough	Firm Dough	Hard and Mature
Starch Level	No Starch	Starch Kernel can be found	Good Gritty Starch	Smallest drop of moisture can be squeezed from grain	Floury Starch
Approx. Time until Harvest	1 month+	2-3 weeks	7-10 days	Harvest for Forage now	Combine
Appearance of Grain/Cob					
Approx. Whole Plant DM%*	Less than 18%	18-25%	25-28%	Approx. 30%	More than 35%

*This is only a guide as whole plant DM% will vary depending on how green or how senesced the stem and leaves are.

COB RIPENESS TRUE MATURITY



		Cob Ripe Oversight mean	NIAB Maturity Group	Cob Ripeness Scores		
				Chester	Wiltshire	Sussex
MARGINAL SITES COB RIPENESS CRITICAL	ARDENT PICKER	8.3	9	8.0	9.0	8.0
	KASPIAN	8.1	10	8.0	8.1	8.3
	COASTGUARD	7.8	13	7.5	8.0	7.8
	BALLADE	7.4	9	7.0	7.3	8.0
	ARTIST REVOLVER	7.4	7	7.4	7.4	7.5
	KOUGER	7.3	10	7.0	7.0	8.0
	IXXES	7.3	11	7.8	7.0	7.2
	IXXES	6.5	9	6.4	6.3	7.0
	IXXES	6.5	9	5.8	6.8	7.0
BIG YIELDS AND EARLY	ARENA	7.7	8	8.0	7.0	8.0
	BALLADE	7.4	7	7.4	7.4	7.5
	KOUGAR	6.5	9	6.4	6.3	7.0
	IXXES	6.5	9	5.8	6.8	7.0
	AGREEMENT	6.3	7	6.0	6.3	6.5
	NK CHEER	6.2	8	7.0	5.5	6.0
MAXIMISE YIELD	DOMINATOR	7.2	7	7.3	7.4	7.0
	MARCO	6.9	5	8.0	6.8	6.0
	SURPRISE	6.6	6	6.8	6.9	6.0
	APOSTROF	6.5	6	6.8	5.7	7.0
	NK BULL	6.3	6	6.3	6.1	6.5
	PODIUM	6.0	7	6.3	6.3	5.5

source: Maizetech cob ripeness scores

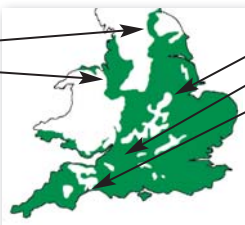
NIAB Maturity - only a guide

The NIAB Less Favourable list can be misleading and should only be used as a guide as less than 50% of the official data is gathered from marginal sites. The remaining data, which is over 50%, comes from good productive trial sites not representative of more marginal growers. The map below shows the site locations used by NIAB for this data superimposed onto the map of the country where very early varieties that require 1200 heat units can be grown.

NIAB Sites

Northallerton, N Yorks
Chester, Cheshire

Marginal sites used by NIAB on Less Favourable list. These represent less than 50% of marginal data.



Newark, Lincs
Lackham, Wilts
Bicton, Devon

Productive sites used by NIAB to collate marginal data for marginal growers. Not representative sites. These represent more than 50% of the data.