AGRONOMY TECHNICAL NOTE – AUGUST 2015
GETTING READY FOR THE MAIZE HARVEST
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The colder wetter August has slowed up the maturity of maize crops, as it has done for most other summer crops as well. Weather data for Camborne, Filton and Hurstmonceaux illustrates the change in weather well. Mean temperatures have dropped in August compared to July and rainfall is considerably more than double the average.

Weather data for July and August 2015

	Mean temp	Max temp	Rainfall (mm)	% rainfall compared to average	Sunshine (hrs)	% Sunshine compared to average
July						
Cornwall	18.2	22.9	97.4	145	166	97
Gloucestershire	20.6	31.1	71.8	132	174	80
Sussex	20.9	32.1	72.4	138	182	78
August						
Cornwall	17.9	20.7	163.6	240	102	60
Gloucestershire	19.6	27.4	43.4	75	100	49
Sussex	21.3	28.8	120	197	116	54

As a consequence of the August check in development, it looks like we are looking at October harvest for most and need to be aware of the implications of this eventuality.

To ensure harvest is not unduly delayed, maturity assessments should start at the beginning of September and then repeated on a weekly basis with the objective of establishing when the crop reaches 20% DM. From this 20% DM point forward, crops typically dry down at 2% per week, so more concrete harvest plans can be formulated with your contractor.

Maize eyespot watch

The decline in the temperatures and increase rainfall in August also mean that Maize Eyespot, which has been hardly evident this year due to the warm and dry weather, may well rear its ugly head again.

The development of Maize Eyespot is best considered in three stages.

1. The initial infection stage.

For this foliar disease to have sufficient time to develop into a serious field scale problem, the first initial infection has to occur in July - (The crops within the NIAB variety trial are infected at the 6 leaf stage). The leaf needs to be wet for at least 6 hours a day and high temperatures need to be avoided (over 28C seems to stop the disease developing which may be due to the leaf drying out quickly). The relatively high temperatures throughout the country, with the exception of Cornwall and the North perhaps, have hampered disease development to the point that it is unlikely that we will see eyespot at serious levels in most areas of the country.

2. Disease spread

Once the disease has established within a crop, it needs the right conditions to spread. The wetter, colder conditions in August will have been perfect for disease development where it is present in the first place.

3 Disease intensity

Once the disease has established and spread we are then looking to September's weather to see how bad things can get, for the intensity of the outbreak. If the August weather pattern continues we can expect the disease to go rampant quickly.

Where does that leave us in 2015?

For the majority who had some hot dry weather in July, then there is little to fear as the initial inoculation did not occur. Even if the plants were infected in August, the disease would have to spread very quickly to become a problem now. That said, if the current weather continues, significant disease development and spread could happen! Keep a close eye on your crops and be prepared to consider a late fungicide treatment if you are really concerned.

The need for a crop inspection is particularly important in the far southwest, western coastal regions and the north where the high July temperatures did not occur. It is likely that the disease is present (hopefully at low levels) in these areas. Growers here will need to seriously consider treating varieties scoring 5 or below on the NIAB Maize Eyespot susceptibility ranking.

NIAB Variety Eyespot Score 2015

ATRIUM	3.0
ADEPT	3.4
TRUXX	3.5
ES REGAIN	3.7
ACTIVATE	4.5
MAS 11F	4.5
ARCADE	4.7
BEETHOVEN	4.7
KOUGAR	4.8
YUKON	4.9
AMBROSINI	5
SEVERUS	5.1
RAMIREZ	5.2
KASPIAN	5.3
ACUMEN	5.4
NK BULL.	5.7
KONTENDER	5.9
GLORY	6.0
AMBITION	6.0
FIELDSTAR	6.1
DUALTO	6.3
MARCO	6.5
SALGADO	7.7

If you decide to treat, then make sure the product contains a Triazole element. If you are not able to treat, then be prepared to harvest a little earlier than might otherwise be the case.

Keep checking your crops during September. If the crop has reached 22% before the disease develops, then a treatment is not likely to be justified.