PREPARATIONS OF THE NEXT MAIZE SEASON AVOIDING LOSSES DUE TO NORTHERN CORN LEAF BLIGHT DISEASE

Maize production in the Province has been experiencing yield losses due to a disease called Northern Corn Leaf Blight (NCLB). This has been happening for the past two seasons, especially in the Amathole, OR Tambo and Alfred Nzo Districts with 2018/ 2019 being the worst year.

PLANNING AS A TOOL TO INCREASE YIELDS

Proper planning plays a critical role in successful increase of yields. In the case of NCLB disease, a farmer has to plan now for the disease management rather than reacting later. They must decide what to plant in that field that had NCLB last season. If changing the crop is not possible, then what must be done to protect the same maize plant that will be planted in that field?

EXECUTE YOUR PLAN

Good or best plans can be made but if not executed, they are useless. It is very important to follow your plans. Your plans may be different from your neighbor's plan but they still deserve to be respected and followed so as to achieve your targets. If someone is changing your plans, the person must have convincing reasons that won't add to your yield losses but improve your yields. Unfortunately, farming requires the farmer to be hands on. Be hands on so that you will notice changes on your plans and act accordingly. At times one must not be stubborn if the situation warrants a change, as long as the bottom line (yields) will increase cost effectively.

Acting late on your plans may contribute into the increase of NCLB in your field as the pathogen is known as a fast spreader (within one week spores may be produced from lesions and spread to the next plants).

RE-CHECK/ ANALYSE

This is another step that is very important in problem solving. Sometimes our execution may be affected by other factors and end up not yielding the desired results. In the instance re-checking plays a major role as you will notice earlier that your plans need revision as well as your execution. In this instance, the environmental conditions may alter your plans or the disease pressure may be more and warrant two sprays or a follow up spray yet your plan was to do one spray warranting a more change of tactics and strategy.

MANAGEMENT STRATEGIES

An integrated disease management strategy using maize cultivars with rate-reducing resistance, crop rotation, tillage practices and use of fungicides is recommended for effective control of NCLB. Other methods that can be used are cultural practices such as deep ploughing which reduces the initial inoculum carried over to the next season and also crop rotation with non-host crops such as soybean, beans and sunflower.

In the absence of resistance or in cultivars with high or average disease risk, preventative or early fungicide application is recommended. Fungicides will not be effective when applied after the grain filling stage, therefore fungicide application should be done before grain filling. They must be applied according to instructions on the labels. Farmers should regularly scout for NCLB in their fields. This will help to reduce yield losses as they will be able to apply fungicides early in the disease cycle. Some of the fungicides which have been reported to have good efficacy are the ones with the following active ingredients:

a) **Azostrobin/epoxiconazole** b) **Bixafen/tebuconazole** c) **Azoxystrobin, propicon** d) **Carbendazim/difenoconazole** e) **Carbendazim/ epoxiconazole** f) **Carbendazim/ flusilazole** g) **Difenoconazole** h) **Epoxiconazole/ thiophanatemethyl**

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