CONTROL OF GRASSES + BROADLEAF
Most of the time different types of weeds are found at the same time in one field.

Pre-emergence: Here herbicides like Authority, Merlin, Lumax and Parabat Extra could be used.

Pre + Early Post emergence: where Diuron, Ametrin, Methylbuzin, Velpar DF, Tebusan, Caballo, Lumax and Dinamic could be used.

Post emergence: where Touch Down and Roundup could be used.

CONTROL OF BROADLEAF WEEDS
Pre-emergence: where Altrazine and Extreme Plus are useful.

Pre + early post emergence: where MCPA is very useful and finally

Post emergence: where Terbo, Garlon 4 and Voloxytril are useful.

CONTROL OF WATERGRASS SPECIES
For pre-emergence control, herbicides like Eptam Super, Authority, Extreme Plus, Lumax and Parabat Extra are useful

For post emergence control, Servian, Touchdown Forte and MSMA are useful.

Post emergence: control where Fusilade Super.

**CONTROL OF GRASSES AND AVAILABLE CHEMICAL PRODUCTS**

CONTROL OF GRASSES

Pre-emergence: control where Falcon Gold, Acetochlor, Lasso and Eptam Super among others have proved to be useful.

Post emergence: control where MSMA is widely used including Fusilade Super.

CONTROL OF BROADLEAF WEEDS

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Pouring rain on the project workshop

Rain gauges and their accessories, peg boards and their pins, record keeping materials and cellular phones with SIM cards have been purchased and distributed to participating growers. SMS software for sending out messages to the participating growers has been installed at SSA Technical Service office. An SMS program is planned to assist participating growers to effectively communicate with the project team. Growers will be trained on how to handle and communicate using the SMS route.

Figure 2 shows the pin-peg board that is used by participating growers.

Participating growers are currently running on site both a profit and loss record sheet and the pin/peg board simultaneously to compare with the data from the project team. Growers have been provided with rain gauges so that they can collect and keep onsite rainfall records.

MONITORING AND EVALUATION

Periodic evaluations by the project team will be conducted to assess the value of the irrigation scheduling technique. The EU project team will also conduct monitoring initiatives to check progress on the project.

EXPECTED OUTCOME

There are three major expected outcomes of the research project. These are:

Outcome 1 – That participating smallholder growers effectively apply irrigation scheduling technique to improve the production and quality of sugarcane.

Outcome 2 – That participating smallholder growers will help other farmers to learn irrigation scheduling technique.

Outcome 3 – That participating smallholder growers will timely and properly apply amount of water during irrigation events.

By Mr. Noah Dlamini
Irrigation Engineer, SSATS

WEEDS AND WEED CONTROL IN SUGARCANE

Weeds can be explained as being any other crop growing in a sugarcane field which is not supposed to be there. It does not matter whether this plant has any beneficial values i.e. edible, medicinal or otherwise, as the focus is to grow sugarcane and ideally there not be any other crop to compete with it.

Weeds, if left unchecked, sugarcane fields compete with the crop for space, nutrients, light and water among others. If this competition is won by the weeds as it is the case most of the time it leads to the reduction of cane yield which could be from 10 to 70% depending on the severity of infestation.

Major weed flora observed in sugarcane fields includes sedges (Cyperus rotundus and esculentas), grasses such as Cynodon dactylon, Sorghum helepense, Panicum species, many broadleaf weeds etc.

WEED GROWTH STAGES AND CONTROL

The weeds that are commonly dealt with include mainly watergrass, grasses and broadleaved weeds. All of these as they are left to develop, their control becomes harder and harder even to the extent of costing the grower more money than when they are controlled early. The stages of control are in all weeds, pre-emergence, i.e. before they even germinate and emerge above ground, early post emergence, post emergence and late post emergence.

The control of weeds should follow an integrated approach, i.e. no single method works perfectly on its own. It should however be mentioned that in sugarcane agriculture the use of herbicides works better than any other method. Other methods when used should compliment herbicides. Other methods include cultural and biological control where however as an industry we are a bit far behind on the latter. Under cultural control we could include hoeing, pulling out weeds by hand, i.e. those that germinate late and are particularly on the cane row, mowing around the verges etc.

Pre-emergence

No watergrass, grasses or broadleaved weeds above ground.

Early post emergence

Watergrass described as being in the early post emergence stage would have 1 to 4 leaves. Early post emergence grasses would have 1 to 2 leaves and broadleaved weeds would be 0 to 30mm.