

# Authority® 480 SC

Herbicide

A suspension concentrate herbicide for the control of sedges, broadleaf weeds and annual grasses as indicated in plant and ratoon sugarcane and flue cured tobacco.

## AUTHORITY® 480 SC HERBICIDE AT A GLANCE

<b>Registration No.</b>	L7872 Act No. 36 of 1947
<b>Active ingredient</b>	Sulfentrazone (aryl-triazolinone)
<b>Chemical class</b>	Herbicide Group 14
<b>Crops</b>	Tobacco and Sugarcane
<b>Target weeds</b>	Control of sedges, broadleaf weeds and annual grasses
<b>Use rate by application</b>	Depends on crop planted (see label)
<b>Number of treatments</b>	Pre-emergence to Early Post-emergence

## MODE OF ACTION AND ACTIVATION

Following the application of **Authority® 480 SC** to soil as a pre-emergent herbicide to weeds and crop, targeted germinating seeds and seedlings take up sulfentrazone from the soil solution. The amount of sulfentrazone in soil solution, and available for weed up-take is determined primarily by soil type, organic matter and soil pH. Sulfentrazone adsorbs to clay and organic matter (OM) fractions of soils, effectively limiting the amount of active ingredient immediately available to control weeds.

### Influence of soil type, organic matter and pH on Authority® 480 SC field performance:

Soil pH exerts an effect on sulfentrazone availability in the soil solution. As soil pH increases, sulfentrazone availability increases. Irrigation with highly alkaline water (pH of 7.5 and above) following **Authority® 480 SC** soil application can also significantly increase the availability of the sulfentrazone in soil solution.

The total amount of sulfentrazone available in solution, in any given soil, is determined by the interaction of soil type (clay content), OM content and pH. The application rate and timing relative to the emergence of the crop and weeds, the amount of rainfall or irrigation received will ultimately determine, in conjunction with the soil parameters and pH, the amount of sulfentrazone in soil solution.

All applications of **Authority® 480 SC** require adequate moisture for herbicidal activation. **Authority® 480 SC** can await activating moisture for extended periods (10 to 14 days). Once activated, **Authority® 480 SC** will provide activity on existing weeds. The level of activity will depend on the weed species and their size at the time of activation.

## ROTATIONAL CROP USE RESTRICTIONS

Allow the following waiting periods between the last application of **Authority® 480 SC** and the planting of follow-up crops.

CROP	MONTHS
Barley / wheat	5
Cotton, sweetcorn	18
Maize, sorghum, rice	10
Sugarcane, soyabean and tobacco	0
Other cereals, dry beans and groundnuts	12

**USE PLANT PROTECTION PRODUCTS SAFELY AND WITH RESPONSIBLE CARE.  
PLEASE ALWAYS FOLLOW THE LABEL WHEN APPLYING PLANT PROTECTION PRODUCTS.**

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### TOBACCO

Use only strong, well-grown, well-hardened seedlings and deep setting of the transplants. Ensure the **Authority® 480 SC** is applied onto a well tilled, firm and level bed free of depressions around the plant stations. Conditions that weaken transplants i.e. unfavourable soil pH, poor agronomic practices, excessive moisture, drought, disease will make the transplants more susceptible to herbicide damage. **Authority® 480 SC** should be applied within 4 days of transplanting onto a good weed-free tilth.

Nozzles should be mounted over the inter-row and direct the spray to include the top of the ridge and the base of the plants on either side so as to avoid contact with the growing point (heart) of the tobacco plants. Do not exceed 1.5 bars of spray pressure over tobacco. Do not incorporate the **Authority® 480 SC** deeper than 5 cms into the soil solution either by irrigation or mechanical means. Do not apply more than 25 mm of irrigation within the first week of application. Do not perform tillage operations that can concentrate **Authority® 480 SC** into the bed as crop injury may result. Temporary stunting of the tobacco may occur if the seedlings are set too shallowly, or if heavy rain or too much irrigation immediately follows planting.

APPLICATION RATE (l/ha)	GRASSES	SEDGES	BROADLEAF WEEDS
400 – 470 mℓ/ha		<i>Cyperus esculentus</i> <i>Cyperus rotundus</i>	<i>Acanthospermum hispidum</i> <i>Ageratum conyzoides</i> <i>Amaranthus spp.</i> <i>Chenopodium album</i> <i>Commelina benghalensis</i> <i>Galinsoga parviflora</i> <i>Nicandra physaloides</i> <i>Physalis angulata</i> <i>Richardia scabra</i> <i>Tagetes minuta</i>
400 mℓ + 1 ℓ/ha Command® 4EC OR 400 mℓ + 0.8 ℓ/ha Butisan® S OR 400 mℓ + 0.70 ℓ -1.2 ℓ/ha Frontier® Optima	<i>Digitaria sanguinalis</i> <i>Echinochloa colona</i> <i>Eleusine coracana</i> <i>Eragrostis spp</i> <i>Panicum maximum</i>		

### SUGARCANE

Apply **Authority® 480 SC** as an overall spray in plant cane and as a directed inter row spray in ratoon cane directly after planting or cutting and before emergence of newly planted or ratoon sugarcane. Refer to label for full directions.

#### APPLICATION RATE

APPLICATION TIMING	SOIL CLASSIFICATION CHART		
	Coarse Sand, Loamy sand, Sandy loam	Medium Sandy clay loam, Sandy clay, Silt loam, Silt	Fine Silty clay loam, Silty clay, Clay loam, Clay
Pre-emergence	Not recommended	1.25 to 1.9 ℓ/ha	1.5 to 1.9 ℓ/ha
Pre- to early Post-emergence	Not recommended	1.25 ℓ + MCPA or ametryn or acetochlor or diuron or paraquat or Trooper. Timing of early post-emergence treatments to weeds should be such that watergrass should be no larger than 1 – 4 leaves, grasses 1 – 2 leaves and broadleaves 0 to 30 mm.	
Late Post-emergence	0.55 ℓ/ha + surfactant or 0.55 ℓ/ha + MCPA		

#### WEEDS CONTROLLED

SEDGES	<i>Bulbostylus hispidula</i> , <i>Cyperus esculentus</i> , <i>Cyperus rotundus</i>
BROAD-LEAF WEEDS	<i>Ageratum conyzoides</i> , <i>Amaranthus spp.</i> , <i>Commelina benghalensis</i> , <i>Conyza floribunda</i> , <i>Datura stramonium</i> , <i>Emex australis</i> , <i>Ipomea purpurea</i> , <i>Portulaca oleracea</i> , <i>Senecio madagascarensis</i> , <i>Solanum nigrum</i> , <i>Sonchus oleraceus</i> , <i>Sysimbrium thellinji</i>
GRASSES	<i>Eleusine indica</i> , <i>Digitaria sanguinalis</i> , <i>Panicum maximum</i> (from seed only), <i>Paspalum dilatatum</i> , <i>Setaria verticillata</i> , <i>Sorghum bicolor</i>

### FOR MORE INFORMATION

Put this powerful tool to work for you. Contact your local crop protection retailer, or FMC representative to learn how you can get more consistent control of key pests in tobacco with **Authority® 480 SC** insect control.

For more information please contact:

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Always read and follow the label directions and precautions for use.  
Authority® 480 SC contains sulfentrazone (aryl-triazolinone) Reg. No. L7872 Act No. 36 of 1947, caution. Command® 4EC contains clomazone (isoxazolidinone) Reg. No. L4369 Act No. 36 of 1947, Harmful.  
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