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Evaluation of Residue Data to Add to Use of Guthion Liquid Concentrate on Sugar Cane Submitted by Chemagro On February 7, 1967

INTRODUCTION

Guthion (granules) has been accepted as a tolerance use on sugar cane. Summary reads:

0.3 ppm tolerance	1.5 lbs. act./A	40 day PHI. No more than five applications per season. Treated cane must be burned off at harvest or washed before processing. Do not feed treated forage or harvest trash to livestock.

NOTE: Chemistry has accepted 1.0 lb. act./A (granules) with 30 day PHI and no caution on burning or washing. Never got in Summary.

Proposed use (Liquid Concentrate):

0.75 lbs. act./A	Air application with one gallon of water per acre. Ten feet above cane tops, 30 day PHI, not more than five applications per season.

This is a concentrated spray, but since it is applied with water, it is apparently not a true low-volume application.

ANALYTICAL METHOD

Same colorimetric method measures parent compound and the only metabolite, the oxygen analog.

DISCUSSION OF DATA

Recovery data show that sensitivity is about 0.1 ppm.

Soil persistence is such that residues would not build up from one season to another.

Only difficulty is that all residue data are for use of 0.75 lbs. act. (LC) diluted to two gallons with water. Directions call for only one gallon water.

They say that the cane was not burned or washed prior to analysis. This is something new. No caution required for this use.

PART ANALYZED	lbs. act./A	no. of APPLIC.	PHI	NO. OF SAMPLES	RESIDUES
Sugar cane	0.75	5	31 + 43	16	less than 0.1-0.2 ppm
"	1.0	5	43	1	0.6
molasses	"	"	"	"	less than 0.1
syrup	"	"	"	2	less than 0.1-0.3
mixed juice	"	"	"	1	0.2
clarified juice	"	"	"	1	less than 0.1
bagasse	"	"	"	1	1.1
mud	"	"	"	1	0.4

The data show that residues in bagasse will exceed the tolerance. Need caution. - Do not feed bagasse to livestock - . The 30 day PHI is barely acceptable. However, the main objection is that the directions call for use of three pints Liquid Concentrate with one gallon of water per acre. All these data are for three pints LC in two gallons of total volume (LC + water) per acre.

The use of about twice as much water might leave about half as much residues as the proposed use.

RECOMMENDATION

It is recommended that we object for these reasons:

The residue data do not reflect the proposed use. All data are for the use of two gallons of total volume per acre, while the directions call for 1 3/8 gallons of total volume per acre (LC plus water).

Also, there must be a caution, Do not feed treated bagasse to livestock.