Click here for previous

TRIAL NUMBER

SPECIES

0.002 kg/ha

.

CYP ROTU	100	XXXXXXXXXXXX
(88)	93	XXXXXXXXXXXX
OXAL LAT	100	XXXXXXXXXXXX
(89)	100	XXXXXXXXXXXX
CYN DACT	100	XXXXXXXXXXXX
(90)	TOO	XXXXXXXXXXXX
AUBGIN	100	XXXXXXXXXXX
(91)	50	XXXXXXXXXX
LENTIL	100	XXXXXXXXXXX
(92)	21	XXXX
MUNGB	100	XXXXXXXXXXXX
(93)	57	XXXXXXXXXXX
TEFF	100	XXXXXXXXXXXX
(94)	100	XXXXXXXXXXXX
COMMEL	100	XXXXXXXXXXXX
(95)	57	XXXXXXXXXXX
EUPHOR	100	XXXXXXXXXXXX
(96)	64	XXXXXXXXXXXX
ORY BATH	100	XXXXXXXXXXXX
(97)	86	XXXXXXXXXXXX
MIM PIG	100	XXXXXXXXXXX
(98)	64	XXXXXXXXXXXX
PEN SET	100	XXXXXXXXXXXX
(99)	57	XXXXXXXXXXX
CHROM S	100	XXXXXXXXXXX
(100)	79	XXXXXXXXXXXX

1

NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl

CGA-131036

0.010 kg/ha

XXXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	000		000	
XXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 21	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 21	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	90 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	86 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	000		000	
XXXXXXXXX	100 50	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

25

0.050 kg/ha

SPECIES

0.002 kg/ha

CHROM	100	XXXXXXX
(101)	100	XXXXXXX

1.4

NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl

CGA-131036

0.010 kg/ha

XXXXXXXXXXXXXX XXXXXXXXXXXXX

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100 71

100 43 XXXXXXXXXXXXXX XXXXXXXXX

0.050 kg/ha

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NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl -27-

Code name

DPX-L5300

Trade name Granstar/Express

Common name

none at time of publiction

Chemical name

methyl 2-{[4-methoxy-6-methyl-1,3,5triazin-2-yl(methyl)carbamoyl]sulfamoyl}benzoate

Structure



Source

DuPont de Nemours (UK) Ltd Wedgwood Way Stevenage Herts, SG1 4QN U.K.

Information available and suggested uses

Control of broad-leaved weeds in cereal crops including the perennial Cirsium arvense applied post-emergence at rates of 10-20 g ai/ha.

Formulation used Dry flowable 75% ai



312 1/ha

RESULTS

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Full results are given in the histograms on pages 30 - 33 and potential selectivities are summarised in the following table.

NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl

-28-

DPX-L5300 POST-EMERGENCE

Dose kg ai/ha	Crops: vigour reduced by less than 15%	Weeds: number or vigour reduced by more than 70%

0.08 teff

Mimosa pigra

0.02	crop above + maize + S pigeon pea	Amaranthus hybridus + species below
0.005	crops above + millet maize soyabean cotton rice mungbean	Pennisetum setosum



NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl -29-

DPX-L5300 POST-EMERGENCE

COMMENTS ON RESULTS

Applied post-emergence to a range of tropical crops and weeds, DPX-L5300 had a poor spectrum of weed control. At the highest dose of 0.08 kg ai/ha, teff was the only tolerant crop but the two broad-leaved weeds Mimosa pigra and Amaranthus hybridus, together with the grass Pennisetum setosum, were controlled at this dose. Several crops, including millet and maize, tolerated the lowest dose of 0.005 kg ai/ha but only P. setosum was controlled.

Susceptibility of the legume crops was variable with pigeon pea tolerating the middle dose of 0.02 kg ai/ha, and soyabean and mungbean showing good resistance to 0.005 kg ai/ha, but groundnut and lentil were extremely sensitive, even at this lowest dose.

In view of the very limited range of weeds controlled, this herbicide will not be of great interest for weed control in tropical crops.



SPECIES

0.005 kg/ha

MILL (57	ET)	100 86
MAIZ (58	E+S	100 93
MAIZ (59	E)	100 86
SORG	HUM	100 71
TOMA (62	TO)	100 57
PIGE (63	ON P	100 100
COWP (64	EA)	100 64
CHIC (65	KPEA	100 57
GRND (66	NUT)	100 7
SOYA (67	BEAN)	100 86
COTT (68	ON)	100 86
JUTE (69)	100 43
KENA (70	F)	100 43

86	XXXXXXXXXXXXX
.00	XXXXXXXXXXXX
93	XXXXXXXXXXXXX
00	XXXXXXXXXXXX
80	XXXXXXXXXXXXX
.00	XXXXXXXXXXXXX
11	XXXXXXXXXXXXX
.00	XXXXXXXXXXXX
51	XXXXXXXXXXXX
.00	XXXXXXXXXXXX
.00	XXXXXXXXXXXXX
.00	XXXXXXXXXXXX
64	XXXXXXXXXXXXXX
.00	XXXXXXXXXXXX
51	XXXXXXXXXXXX
.00	XXXXXXXXXXXX
/	X
.00	XXXXXXXXXXXXX
86	XXXXXXXXXXXXXX
.00	XXXXXXXXXXXXX
86	XXXXXXXXXXXXX
00	XXXXXXXXXXXX
43	XXXXXXXXX
.00	XXXXXXXXXXXX
43	XXXXXXXXX

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DPX L5300

0.020 kg/ha

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
VVVVVVVVVVVVVVVVVVVVVV	100	*****	100	*****
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 64	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	86	XXXXXXXXXXXXXXXXX	71	XXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0 0	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0 0	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXX	/1	XXXXXXXXXXXXXXXXX	64	XXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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0.080 kg/ha



SPECIES TOBACCO 100 71) 64 100 SESAMUM 72) 57 100 RICE (74) ELEU IND 94 76) 100 ECH CRUS 100 (77) ROT COCH 100 (78) 100 (79) AMAR HYB 108 (80) PORT OLE 100 81) 86 BROM PEC 100 84) 100 85) 86) 93 CYP ESCU 100 87) 100

XXXXXXXXXXXXXXX XXXXXXXXXXXXX XXXXXXXXXXX 50 xxxxxxxxxx XXXXXXXXXXXXXX

XXXXXXXXXXXXX

XXXXXXXXXXXXXX

0.005 kg/ha

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DPX L5300

ha		0.020 kg/ha
XXXXXXXXX	100 50	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	94 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX XXXXXXXX	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX XXXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX XXXXX	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX XXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX+	108 21	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	90 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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0.080 kg/hCa

X	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
5	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	87 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	92 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X+	108 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	100 50	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



SPECIES

0.005 kg/ha

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CYP ROTU	100	XXXXXXXXXXXX
(88)	100	XXXXXXXXXXXX
OXAL LAT	100	XXXXXXXXXXXX
(09)	100	XXXXXXXXXXXX
CYN DACT	100	XXXXXXXXXXXX
(90)	100	XXXXXXXXXXXXX
AUBGIN	100	XXXXXXXXXXXXX
(91)	43	XXXXXXXXX
LENTIL	100	XXXXXXXXXXXX
(92)	36	XXXXXXX
MUNGB	100	XXXXXXXXXXXX
(93)	93	XXXXXXXXXXXX
TEFF	100	XXXXXXXXXXXX
(94)	100	XXXXXXXXXXXX
COMMEL	100	XXXXXXXXXXXXX
(95)	86	XXXXXXXXXXXX
EUPHOR	100	XXXXXXXXXXXX
(96)	100	XXXXXXXXXXXX
ORY BATH	100	XXXXXXXXXXXX
(97)	86	XXXXXXXXXXXXX
MIM PIG	100	XXXXXXXXXXXXX
(98)	71	XXXXXXXXXXXX
PEN SET	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
(99)	29	XXXXXX
CHROM S	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
(100)	79	XXXXXXXXXXXXX

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DPX L5300

0.020 kg/ha

XXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	79	XXXXXXXXXXXXXXXX
XXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	43	XXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	43	XXXXXXXXX	36	XXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0	
	29	XXXXXX	0	
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	71	XXXXXXXXXXXXX	57	XXXXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXX	71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	50	XXXXXXXXXX
XXXXXXXX	86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	64	XXXXXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXX	71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	57	XXXXXXXXXX
XXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXX	50	XXXXXXXXXXX	29	XXXXXX
XXXXXXXX	0		0	
	0		0	
XXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXX	71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	43	XXXXXXXXX

0.080 kg/ha



SPECIES

0.005 kg/ha

CHROM 100 (101) 100

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NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl

DPX L5300

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0.020 kg/ha

100 100

0.080 kg/ha

100 79

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XXXXXXXXXXXXXXXXXX



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Trade name none at time of publication

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-34-

Chemical name

-triazin-2-yl)carbamoylsulfamoyl]benzoate

Structure





DuPont de Nemours (UK) Ltd, Wedgwood Way Stevenage Herts SG1 4QN U.K.

Information available and suggested uses

For post-emergence use in oilseed rape at 15-30 g ai/ha to control broad-leaved weeds including Sinapis arvensis, Thlaspi arvense Stellaria media among others.

Formulation used 75% w/w water dispersable granules

Spray volume 312 1/ha

RESULTS

Full results are given in the histograms on page 37 - 40 and potential selectivities are summarised in the following table.

NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl



DPX-A7881 POST-EMERGENCE

Dose Crops: vigour kg ai/ha reduced by 15% or less Weeds: number or vigour reduced by more than 70%

0.16

pigeon pea

Digitaria sanguinalis Commelina diffusa + species below

 0.04
 crop above + teff
 Echinochloa crus-galli

 Amaranthus hybridus
 Bromus pectinatus

 Bromus pectinatus
 Snowdenia polystachya

 Phalaris minor
 Oryza barthii

 + species below
 + species below

 0.01
 crops above + cowpea

 mungbean
 Pennisetum setosum



NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl -36-

DPX-A7881 POST-EMERGENCE

COMMENTS ON RESULTS

All the cereal crops, with the exception of teff, were very susceptible to post-emergence applications of DPX-A7881. Teff, however, was tolerant at the middle dose of 0.04 kg ai/ha, which controlled a good range of annual grass weeds, including <u>Snowdenia polystachya</u>, and the broad-leaved weed Amaranthus hybridus.

Pigeon pea was tolerant at the top dose of 0.16 kg ai/ha and the additional weeds controlled at this dose were Digitaria sanguinalis and Commelina diffusa. Two other leguminous crops, cowpea and mungbean, were tolerant of the lowest dose of 0.01 kg ai/ha, although only Pennisetum setosum was controlled at this dose.

Of the broad-leaved crops, jute and sesamum were very sensitive, but cotton, kenaf, tomato, aubergine and tobacco were more resistant, although not tolerant of even 0.01 kg ai/ha the lowest dose. The range of broad-leaved weed control was very limited, but included the difficult -to-control <u>Commelina diffusa</u> at the top dose of 0.16 kg ai/ha as well as <u>Amaranthus hybridus at 0.04 kg ai/ha.</u> <u>Cynodon dactylon</u>, the broad-leaved perennial <u>Oxalis latifolia</u> and the perennial sedges <u>Cyperus rotundus</u> and <u>C. esculentus were all very resistant to DPX A7881</u>, as might be expected with a sulfonyl urea herbicide. <u>Rottboellia cochinchinensis</u> was resistant to post-emergence application of DPX A7881, although it was selectively controlled by pre-emergence applications in pigeon pea at 0.16 kg ai/ha.

The most interesting selectivity shown in these results is the control of the annual grass weeds Bromus pectinatus, Phalaris minor and Snowdenia polystachya in teff. This will be of direct interest to research workers in Ethiopia where these weeds are an increasing problem.



SPECIES

0.010 kg/ha

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MILLET	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
()/)	50	AAAAAAAAA
MAIZE+S	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
(58)	19	XXXXXXXXXXXX
MAIZE	100	XXXXXXXXXXXXXX
(59)	64	XXXXXXXXXXXXXXX
SORGHUM	100	XXXXXXXXXXXXX
(61)	29	XXXXXX
TOMATO	100	XXXXXXXXXXXXX
(62)	64	XXXXXXXXXXXXX
PIGEON P	100	XXXXXXXXXXXXX
(63)	93	XXXXXXXXXXXXX
COWPEA	100	XXXXXXXXXXXXX
(64)	86	XXXXXXXXXXXX
CHICKPEA	80	XXXXXXXXXXXX
(65)	43	XXXXXXXXX
TUTIT	100	VVVVVVVVVV
(66)	79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
OUTDEANT	100	
(67)	71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
COTTON	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
(00)	15	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
JUTE	100	XXXXXXXXXXXX
(69)	43	XXXXXXXXX
KENAF	100	XXXXXXXXXXXX
(70)	71	XXXXXXXXXXXX

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DPX A7881

0.040 kg/ha

XXXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX XXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXX	000	
XXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXX	100 64	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

0.160 kg/ha

X	0 0	
X	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X	0 0	
X	00	
X	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
X	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	000	
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 64	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 21	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
x	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX



SPECIES

100 TOBACCO 71 (71)

100 SESAMUM 64 72)

100 RICE 57 74

100 76)

ECH CRUS 100 77) 79

ROT COCH 100 (78) 86

DIG SANG 100 (79) 71

(80)

PORT OLE 100 100 81)

43 84)

(85)

(86)

100 (87)

0.010 kg/ha

36 XXXXXXX

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DPX A7881

0.040 kg/ha

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	92 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 21	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	0 0	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	000	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	87 14	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	000	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	000	
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	100 50	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

0.160 kg/ha

38-

0.010 kg/ha SPECIES CYP ROTU 100 XXXXXXXXXXXXX 86 (88) XXXXXXXXXXXXX OXAL LAT 100 XXXXXXXXXXXXX 100 (89) XXXXXXXXXXXXXX CYN DACT 100 XXXXXXXXXXXXX (90) 93 XXXXXXXXXXXXXX 100 AUBGIN XXXXXXXXXXXXXX (91) 79 XXXXXXXXXXXXXX 100 LENTIL XXXXXXXXXXXXXX (92) 36 XXXXXXX 100 MUNGB XXXXXXXXXXXXXX (93) 93 XXXXXXXXXXXXXX 100 TEFF XXXXXXXXXXXXXX (94) 86 XXXXXXXXXXXXXXX 100 COMMEL XXXXXXXXXXXXXX (95) 79 100 EUPHOR 96) 71 ORY BATH 100 XXXXXXXXXXXXXXXX 57 xxxxxxxxxxx (97) MIM PIG (98) PEN SET 0 (99) 0 100 CHROM S (100) 93

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DPX A7881

0.040 kg/ha

XXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 93	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 7	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 57	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 86	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXXX	100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
XXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
	000	
XXXXXXX	100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

0.160 kg/ha

100 50	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 79	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
000	
100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 71	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
86 36	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 29	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
100 43	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
000	
100 50	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

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SPECIES

0.010 kg/ha

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CHROM	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
(101)	100	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl

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Martin A.

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DPX A7881

0.040 kg/ha

100 XXXXXX 93 XXXXXX

0.160 kg/ha

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100 71 XXXXXXXXXXXXXX



NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl

-41-

ACKNOWLEDGEMENTS

I am grateful to C.M. Marshall for processing the experimental data and to Miss J. Wyatt, and R.F. Hughes and glasshouse staff for technical assistance. The work was carried out with financial support from the European Economic Community (EEC) under contract no. TSD.A.198 UK.



RICHARDSON, W.G. and DEAN, M.L. (1973). The pre-emergence selectivity of some recently developed herbicides: lenacil, RU 12068, metribuzin, cyprazine, EMD-IT 5914 and benthiocarb. Technical Report, Agricultural Research Council, Weed Research Organization, 25, pp.57.

RICHARDSON, W.G. and PARKER, C. (1977). The activity and post-emergence selectivity of some recently developed herbicides: KUE 2079A, HOE 29152, RH 2915, triclopyr and Dowco 290. Technical Report, Agricultural Research Council, Weed Research Organization, 42, pp.53.

WEST, T.M. (1988) The activity and post-emergence selectivity of some recently developed herbicides: AC 263499, BAS 518 00H, CGA 131036, DPX-L5300 and DPX-A7881. Technical Report, Long Ashton Research Station, Weed Research Division, No. 104, pp.49.



Appendix 1. Species, abbreviations, varieties and stages of growth at spraying and assessment for post-emergence selectivity test.

source

- 42 -

Designa-Cultivar tion and or computer serial

Stage of growth Stage of growth at at assessment spraying (untreated (No.true controls, leaf leaves) of cotyledons)

number exclusive

number

Millet (Pennisetum americanum)	MILLET (57)	ex Bornu	3.5 - 4.5	7.5 - 9.5
Maize + safener (NA) (<u>Zea mays</u>)	MAIZE + S (58)	LG11	3 - 3.5	6.5 - 7.5
Maize (Zea mays)	MAIZE (59)	LG11	3 - 3.5	7.5 - 8.5
Sorghum (Sorghum bicolor)	SORGHUM (61)	Tub 22	3.5	7.5 - 8.5
Tomato (Lycopersicum	томато (62)	Moneymaker	2	5.5 - 6.5

esculentum)

Pigeon Pea (Cajanus cajan)	PIGEON P (63)	ICPL 138	1 - 1.5	5.5 - 6.5
Cowpea (Vigna unguiculata)	COWPEA (64)	TRS	1	2.0 - 2.5
Chickpea (<u>Cicer arietinum</u>)	CHICKPEA (65)	ILC 482	5 - 6	19.5
Groundnut (Arachis hypogaea)	GRDNUT (66)	Robut 33–1	4 - 4.5	8.5
Soyabean (<u>Glycine max</u>)	SOYABEAN (67)	Amsoy	1.5	4.5 - 5.5
Cotton (Gossypium hirsutum)	COTTON (68)	Coker 315	1.5	3.5 - 4.0

Jute (Corchorus olitorius)	JUTE (69)	JRC 7447	1.5 - 2.0	8.5 - 10.5
Kenaf (<u>Hibiscus</u> cannabinus)	KENAF (70)	ex Sudan	2	6.5 - 7.5
Tobacco (Nicotiana tabacum)	TOBACCO (71)	North Caro- lina 2326	- 4 - 4.5	6.0 - 6.5

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Appendix 1 Cont'd..

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Designa-tion and computer serial

Cultivar or source

Stage of Stage of growth growth at at assessment spraying (untreated (No. true controls, leaf leaves) number exclusive

number

number exclusive of cotyledons)

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Sesamum (Sesamum indicum)	SESAMUM (74)	75403-в	1.5	3.5 - 4.5
Rice (Oryza sativa)	RICE (74)	IR 36	3 - 3.5	6.5 - 7.5
Eleusine indica	ELEU IND (76)	Zimbabwe	3 - 3.5	6.5 - 7.5
Echinochloa crus-galli	ECH CRUS (77)	S. Africa 1979	3	6.5 - 7.5
Rottboellia cochinchinensis (= R.exaltata)	ROT COCH (78)	Zimbabwe 1978	2.5 - 3	6.5 - 7.5

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Digitaria sanguinalis	DIG SANG (79)	USA 1979	3 - 3.5	Tillered
Amaranthus hybridus	AMAR HYB (80)	Zimbabwe 1985	4.5	7.5 - 8.5
Portulaca oleracea	PORT OLE (81)	Israel 1973	4.5 - 5.5	6 - 8 pairs
Bromus pectinatus	BROM PEC (84)	Tanzania 1081	2 - 2.5	5.5 - 7.5
Snowdenia polystachya	SNOW POL (85)	Ethiopia 1980	4 - 4.5	5.5 - 6.5
<u>Phalaris</u> minor	PHAL MIN (86)	India 1979	2 - 3	6.5 - 8.0

Cyperus esculentus	CYP ESCU (87)	S. Africa WRO Clone 2	3 - 7	8.5 - 10.5
Cyperus rotundus	CYP ROTU (88)	Zimbabwe WRO Clone 1	5 - 6	11.0 - 11.5
Oxalis latifolia	OXAL LAT (89)	Cornwall B WRO Clone 2	3 - 19 3 - 19	15 - 23 15 - 23

Cont'd..

Appendix 1 cont'd..

Designa-tion and computer serial

Stage of Stage of growth growth at at assessment spraying (untreated (No. true controls, leaf number exclusive leaves) of cotyledons)

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number

Cynodon dactylon	CYN DACT (90)	Clone 2 WRO Sudan	5 - 5.5	Stolons well developed
Aubergine (Solanum melongena)	AUBGIN (91)	Moneymaker (F ₁ hybrid)	1.5	4.5 - 5.5
Lentil (Lens culinaris)	LENTIL (92)	Syrian local ILL 4401	5 - 7	12.5 - 13.5
Mungbean (Phaseolus aureus)	MUNGB (93)	CES-ID-21	1	2.5 - 3.5
Teff (Eragrostis tef)	TEFF (94)	ex Addis Ababa 1981	4 - 5	5.5 - 6.5

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Cultivar

or

source

Commelina diffusa	COMMEL (95)	USA 1985	3	6.5 - 7.5
Euphorbia heterophylla	EUPHOR (96)	Brazil 1985	3 - 3.5	5.5 - 7.5
<u>Oryza</u> <u>barthii</u>	ORY BATH (97)	Senegal 1981	2.5 - 3.5	7.5
Mimosa pigra	MIM PIG (98)	Thailand 1985	2	6.5 - 7.5
Pennisetum setosum	PEN SET (99)	Thailand 1985	4.5	tillered
Chromolaena odorata (Seedlings)	CHROM S (100)	Malaysia 1986	2.4	3.5 - 4.5

Chromolaena	CHROM	Malaysia	2.5 - 3.5	6.5 - 7.5
odorata	(101)	1986		

ABBREVIATIONS

- 45 -

angström	R	freezing point	f.p.
Abstract	Abs.	from summary	F.s.
acid equivalent*	a.e.	gallon	gal
acre	1c	sallons per hour	gal/h
active ingredient*	a.i.	gallons per acre	ga1/a

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approximately equal to*	~	gas liquid chromatography	GLC
aqueous concentrate	a.c.	gramme	g
bibliography	bibl.	hectare	ha
boiling point	b.p.	hectokilogram	hkg
bushe1	bu	high volume .	HV
centigrade	C	horse power	hp
centimetre*	cm	hour	h
concentrated	concd	hundredweight*	cwt
concentration concentration x	concn	hydrogen ion concentration*	pH
time product	ct	inch	in.
concentration		infra red	i.r.
50% test animals	LC50	kilogramme	kg
cubic centimetre*	cm ³	kilo (x10 ³)	k
cubic foot*	ft ³	less than	<
cubic inch*	in ³	litre	1.
cubic metre*	m ³	low volume	LV
cubic yard*	yd ³	maximum	max.
cultivar(s)	cv.	median lethal dose	LD50
curie*	Ci	medium volume	MV
degree Celsius*	°c	melting point .	m.p.
degree centigrade	°c	metre	m
degree Fahrenheit*	°F	micro (x10 ⁻⁶)	μ
diameter	diam.	microgramme*	μg
diameter at breast height	d.b.h.	micromicro (pico: x10 ⁻¹²)*	ith
divided by*	tor /	micrometre (micron)*	μm (or μ)
dry matter	d.m.	micron (micrometre)*†	μm (or μ)
emulsifiable		miles per hour*	mile/h
concentrate	e.c.	milli $(x10^{-3})$	m
equal to*	-	milliequivalent*	m.equiv.
fluid	f1.	milligramme	mg
foot	ft	millilitre	m1
4			

T The name micrometre is preferred to micron and μm is preferred to μ .

millimetre* millimicro* $(nano: x10^{-9})$ minimum minus minute molar concentration* molecule, molecular more than

n or mu min. min M (small cap) mol. > X N (small cap) n.d. O.M.C. (tables only) O.M. OZ oz/gal p. pp. ppm

min

pre-emergence pre-em. quart quart relative humidity r.h. revolution per minute* rev/min second B soluble concentrate S.C. soluble powder B.p. solution soln species (singular) sp. species (plural) spp. specific gravity sp. gr. ft² square foot* in² square inch m2 square metre* square root of* 5 sub-species* 88p. summary 8. temperature temp. ton ton tonne t ultra-low volume ULV ultra violet u.v. vapour density v.d. vapour pressure varietas var. volt V volume vol. volume per volume v/v water soluble powder W.S.p. (tables only) W watt weight wt weight per volume* W/W

- 46 -

multiplied by* normal concentration* not dated oil miscible concentrate organic matter ounce ounces per gallon page pages parts per million parts per million by volume ppmv parts per million by weight ppaw % percent(age) pico (micromicro: x10⁻¹²) p or µµ pint pint pints per acre pints/ac + plus or minus* post-emergence post-em pound 16 pound per acre* 1b/ac lb/min pounds per minute 11/1-2 manned man markens in the

pound per square incn-	ID/IN	weight per weight*	w/w
powder for dry application	p. (tables only)	wettable powder	w.p.
power take off	p.t.0.	yard	yd
precipitate (noun)	ppt.	yards per minute	yd/min

* Those marked * should normally be used in the text as well as in tables etc.



INSTITUTE OF ARABLE CROPS RESEARCH Long Ashton Research Station WEED RESEARCH DEPARTMENT

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TECHNICAL REPORTS

(Price includes surface mail; airmail £2.00 extra) (* denotes Reports now out of print)

- 55. The activity and selectivity of the herbicides carbetamide, methazole, R 11913 and OCS 21693. May 1979. W G Richardson and C Parker. Price - £1.80
- 56. Growing weeds from seeds and other propagules for experimental purposes. July 1979. R H Webster. Price - £1.10
- 57. The activity and pre-emergence selectivity of some recently developed herbicides: R 40244, AC 206784, pendimethalin, butralin, acifluorfen and FMC 39821. December 1979. W G Richardson, T M West and C Parker -Price - £3.55
- 58. The tolerance of fenugreek (Trigonella foenumgraecum L.) to various herbicides. December 1979. W G Richardson. Price - £1.55
- 59. Recommended tests for assessing the side-effects of pesticides on the soil microflora. April 1980. M P Greaves, N J Poole, K H Domsch, G Jagnow and W Verstraete. Price - £2.00 (Amended version to be printed in 1986).
- 60. Properties of natural rainfalls and their simulation in the laboratory for pesticide research. September 1980. R C Simmons. Price - £1.25
- 61. The activity and post-emergence selectivity of some recently developed herbicides: R 40244, DPX 4189, acifluorfen, ARD 34/02 (NP 55) and PP 009. November 1980. W G Richardson, T M West and C Parker. Price - £3.75
- 62. The activity and pre-emergence selectivity of some recently developed herbicides: UBI S-734, SSH-43, ARD 34/02 (= NP 55), PP 009 and DPX 4189. February 1981. W G Richardson, T M West and C Parker. Price - £3.50
- 63. The activity and post-emergence selectivity of some recently developed herbicides: SSH-41, MB 30755, AC 213087, AC 222293 and Dowco 433. May 1981. W G Richardson, T M West and C Parker. Price - £3.50
- 64. The activity and pre-emergence selectivity of some recently developed herbicides: chlomethoxynil, NC 20484 and MBR 18337. March 1982. W G Richardson, T M West and C Parker. Price - £3.00

65. A system for monitoring environmental factors in controlled environment chambers and glasshouses. June 1982. R C Simmons. Price - £1.50

66. The activity and pre-emergence selectivity of some recently developed herbicides: AC 213087 and AC 222293. December 1982. W G Richardson, T M West and C Parker. Price - £2.00

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- 67. The activity and post-emergence selectivity of some recently developed herbicides: trifopsime, glufosinate, RH 8817, MBR 18337 and NC 20484. December 1982. W G Richardson, T M West and C Parker. Price - £3.25
- 68. The activity and pre-emergence selectivity of some recently developed herbicides: WL 49818, WL 82830, WL 83627, WL 83801 and DPX 5648.

December 1982. W G Richardson, T M West and C Parker. Price - £4.00

- 69. The activity and late post-emergence selectivity of some recently developed herbicides: AC 252925, DOWCO 453, HOE 33171 and HOE 35609. March 1983. W G Richardson, T M West and G P White. Price - £3.25
- 70. The potential of various herbicides for selective control of weed grasses and Stellaria media in newly sown ryegrass/clover leys and ryegrass seed crops. May 1983. F W Kirkham Price - £1.75
- 71. A feasibility study of the use of chemicals for rural amenity areas. Sponsored by the Countryside Commission. September 1983. E J P Marshall Price - £5.00
- 72. The activity and late post-emergence selectivity of FBC 32197. November 1983. W G Richardson, T M West and G P White. Price - £1.25

73. Paraquat persistence - statistical analysis of the WRO long term trial.

- January 1984. R J Hance, T H Byast, P D Smith and T M Weight. Price £1.00
- 74. The activity and post-emergence selectivity of some recently developed herbicides: AC 252214, DPX-T6376, and chlorazifop. February 1984. W G Richardson, T M West and G P White. Price - £2.00.
- 75. The effect of temperature and soil moisture on the activity of isoproturon and chlortoluron on <u>Alopecurus myosuroides</u> and winter wheat. May 1984. A M Blair. Price - £2.00
- 76. A laboratory rainfall simulator for pesticide studies. May 1984. R C Simmons. Price - £2.00
- 77. Experiments on the effects of the herbivorous fish, grass carp (<u>Ctenopharyngodon idella Val.</u>) on aquatic vascular plants, algae, zooplankton and phytoplankton and the importance of water temperature on the success of weed control. September 1984. M C Fowler. Price - £3.50.
- 78, The activity and post-emergence selectivity of some recently developed herbicides: MCPA-thioethyl, MT-124, tridiphane, aclonifen and RST 20024 H. October 1984. W G Richardson and T M West. Price - £5.40
- 79. A preliminary study on the effect of some agricultural herbicides on a range of field margin flora. November 1984. J E Birnie. Price - £2.50
- 80. The activity and pre-emergence selectivity of some recently developed herbicides: imazaquin, isoxaben, metsulfuron-methyl, aclonifen and orbencarb. December 1984. W G Richardson and T M West. Price - £6.50

81. The side effects of alloxydim sodium, sethoxydim, acifluorfen and fluazifop-butyl on legume growth and nodulation. January 1985. J M Bebb, M P Greaves and W G Richardson. Price - £3.00

- 49 -

- 82. An IRGA system for continuous monitoring of CO₂ and H₂O vapour exchange in replicate plants growing in controlled environments. January 1985. C R Merritt and R C Simmons. Price - £3.00
- 83. A laboratory pot sprayer for use with controlled environment chambers.

February 1985. R C Simmons and J A Drinkwater. Price - £2.50

- 84. Maps of the changes in the weeds of Boddington Barn field over twenty years (1961-1981). March 1985. R J Chancellor. Price £4.50
- 85. The use of bentazone and pyridyl herbicides alone and in mixtures for the control of creeping thistle (Cirsium arvense L.) in grassland. April 1985. W G Richardson, A K Oswald and T M West. Price £1.50
- 86. The activity and pre-emergence selectivity of some recently developed herbicides: metazachlor, butamifos, MT-124, tridiphane, MK 616 and prodiamine. May 1985. W G Richardson and T M West. Price - £7.00.
- 87. The potential use of grass growth retardants at Sullom Voe terminal, Shetland. A report prepared for W J Cairns and Partners, 16 Randolph Crescent, Edinburgh, Environmental Consultants to BP Petroleum Development Ltd as Operators of Sullom Voe Terminal. May 1985. E J P Marshall. Price - £3.00.
- 88. A further study of the effect of six cereal herbicide treatments on a range of broad-leaved field margin plants. June 1985. J E Birnie. Price £2.50
- 89. The activity, pre-and post-emergence selectivity of diflufenican. December 1985. W G Richardson and T M West. Price - £3.00
- 90. The pre-emergence selectivity in warm-climate species of some recently developed herbicides: imazaquin, AC263 499, cinmethylin and isoxaben January 1986. C Parker and A K Wilson. Price - £2.60
- 91. The activity, pre-emergence selectivity and persistence of some recently developed herbicides: DOWCO 453, Quizalofop-ethyl, BAS 517 OOH, cinmethylin, AC263,499 and RST 20024H. W G Richardson and T M West. Price - £6.20
- 92. The activity and post-emergence selectivity of some recently developed herbicides: SMY 1500, PPG 884, PPG 1259 and DPX-M 6316. W G Richardson and T M West. February 1986. Price - £4.20.
- 93. The pre-emergence selectivity in warm climate species of some recently developed herbicides: metazachlor, RST 20024H, orbencarb and diflufenican. C Parker and A K Wilson. February 1986. Price £2.70.
- 94. Screening strawberries for tolerance to 96 herbicides and growth regulators applied to the foliage and roots. D V Clay. February 1986. Price £5.00.

NB: AC 263,499 is imazethapyr, BAS 514 is quinclorac, CGA is 131036 is triasulfuron, DPX L5300 is tribenuron-methyl, DPX A7881 is ethametsulfuron-methyl - 50 - 50 - 50

95. Grass Growth Retardant use at Sullom Voe Terminal, Shetland 1985 Programme Report. (A report prepared for W.J. Cairns & Partners, 16 Randolph Crescent, Edinburgh, Environmental Consultants to BP Petroleum Development Limited as Operators of Sullom Voe Terminal). E.J.P. Marshall. August 1986. Price - £2.50

96. Studies of the flora in Arable Field Margins. E.J.P. Marshall. October 1986. Price - £3.50.

97. The post-emergence selectivity in warm climate species of some recently

developed herbicides: SMY 1500, PPG 884, PPG 1259 and DPX-M6316. A.K. Wilson and C. Parker. February 1987. Price - £3.75.

- 98. The activity, pre-emergence selectivity and persistence of some recently developed herbicides: SMY 1500, PPG 884, PPG 1259, DPX-M 6316 and FMC 57020. T.M. West and W.G. Richardson. November, 1987. Price - £6.00.
- 99. The pre-emergence selectivity in warm-climate species of some recently developed herbicides: SMY 1500, PPG 884, PPG 1259, DPX M6316 and FMC 57020. A.K. Wilson and C. Parker. August, 1988. Price - £5.00.
- 100. The post-emergence selectivity in warm-climate species of some recently developed herbicides: AC 263499, BAS 514, CGA 131036, DPX L5300 and DPX A7881. A.K. Wilson. August, 1988. Price - £3.50.
- 101. The pre-emergence selectivity in warm-climate species of some recently developed herbicides: CGA 131036, DPX L5300, DPX A7881, BAS 514. A.K. Wilson. August, 1988. Price - £3.50.
- 102. The post-emergence selectivity in warm-climate species of two recently developed herbicides: FD 4026 (PP604) and BAS 51700H. A.K. Wilson. August, 1988. Price £3.50.
- 103. Assessment of Amenity Grass Mixtures for use in Low-maintenance Situations. G. Donaldson, G.M. Arnold and M. Perry. February, 1988. Price - £2.75.
- 104. The activity and post-emergence selectivity of some recently developed herbicides: Imazethapyr, BAS 51800H, DPX-L5300, Triasulfuron and DPX-A7881. T.M. West. June, 1988. Price: £6.00.