(3-17-95)

MRID No. 426010-01

DATA EVALUATION RECORD

1. **CHEMICAL:** Paraquat dichloride.
Shaughnessey No. 061601.

2. **TEST MATERIAL:** Paraquat (Gramoxone Extra); 1,1-dimethyl-4,4-bipyridylium dichloride; Sample ID No. 13183-40-2; 29.4% active ingredient w/v.

3. **STUDY TYPE:** 123-1. Non-Target Plants: Vegetative Vigor Phytotoxicity Study - Tier 2. Species Tested: Soybean, Sugarbeet, Oilseed rape, Morningglory, Velvetleaf, Cocklebur, Corn, Wheat, Wild oat, Purple nutsedge.

4. **CITATION:** Canning, L. and J.S. White. 1992. Paraquat: A Glasshouse Study to Evaluate the Effects on Vegetative Vigour of a 300 g ai litre^{-1} (2.5 lb ai US gal^{-1}) Soluble Concentrate Formulation on Terrestrial Non-target Plants. Laboratory Project ID No. 92JH088. Conducted by ICI Agrochemicals, Jealotts Hill Research Station, Bracknell, Berkshire, UK. Submitted by ICI Americas, Inc., Wilmington, DE. EPA MRID No. 426010-01.

5. **REVIEWED BY:**

Mark A. Mossler, M.S.
Associate Scientist
KBN Engineering and
Applied Sciences, Inc.

Signature: [signature]
Date: 2/10/93

Renée Lamb 4/12/93

6. **APPROVED BY:**

Pim Kosalwat, Ph.D.
Senior Scientist
KBN Engineering and
Applied Sciences, Inc.

Signature: P. Kosalwat
Date: 2/10/93

Henry T. Craven, M.S.
Supervisor, EEB/EFED
USEPA

Signature: [signature]
Date: Henry T. Craven 3/17/95 4/13/95

7. **CONCLUSIONS:** This study is scientifically sound and meets the requirements for a Tier 2 vegetative vigor test using non-target plants for seven of the ten test species. This study is not scientifically sound for the species treated with insecticides (wild oat, purple nutsedge, and winter wheat).

DER# 426010-01

Page _____ is not included in this copy.

Pages 7 through 12 are not included in this copy.

The material not included contains the following type of information:

_____ Identity of product inert ingredients.

_____ Identity of product impurities.

_____ Description of the product manufacturing process.

_____ Description of quality control procedures.

_____ Identity of the source of product ingredients.

_____ Sales or other commercial/financial information.

_____ A draft product label.

_____ The product confidential statement of formula.

_____ Information about a pending registration action.

√ FIFRA registration data.

_____ The document is a duplicate of page(s) _____.

_____ The document is not responsive to the request.

The information not included is generally considered confidential by product registrants. If you have any questions, please contact the individual who prepared the response to your request.

---

cocklebur dry weight

Summary Statistics and ANOVA

Transformation = None

Group (rate (g ai/ha))	n	Mean	s.d.	cv%
1 = control	6	4.2667	.0612	1.4
2*6.25	3	3.6700	.3051	8.3
3 12.5	3	3.8100	.3509	9.2
4*25	3	2.9067	.3427	11.8
5*50	3	1.4433	.6093	42.2
6*100	3	.4167	.2548	61.2
7*200	3	.0000	.0000	.0
8*1054	3	.0000	.0000	.0

NOEL = 12.5 g/ha

LOEL = 25 g/ha

in lb ai/A:

NOEL = ~~0.10~~ .011 lb ai/A

LOEL = ~~0.22~~ ~~0.22~~ 0.023 lb ai/A

*) the mean for this group is significantly less than the control mean at alpha = 0.05 (1-sided) by a t - test with Bonferroni adjustment of alpha level

Minumum detectable difference for
t-tests with Bonferroni adjustment = -.446004
This difference corresponds to -10.45 percent of control

****
* *
* Note - the above value for the minimum *
* detectable difference is approximate as *
* the sample sizes are not the same for all of *
* the groups. *
* *
****

Between groups sum of squares = 81.362133 with 7 degrees of freedom.

Error mean square = .082018 with 19 degrees of freedom.

****
* *
* Warning - the test for equality of variances *
* could not be computed as 1 or more of the *
* variances is zero. *
* *
****

cocklebur dry weight

Estimated EC Values and Confidence Limits

Point	Conc.	Lower 95% Confidence Limits	Upper Limits
EC 1.00	0.0420	0.0275	0.0570
EC 5.00	0.0744	0.0544	0.0937
EC10.00	0.1009	0.0780	0.1224
EC15.00	0.1240	0.0993	0.1469
EC50.00	~~0.2961~~ 0.033 lb a.i./A	0.2622	0.3343
EC85.00	0.7068	0.5970	0.8815
EC90.00	0.8684	0.7166	1.1223
EC95.00	1.1781	0.9364	1.6099
EC99.00	2.0876	1.5386	3.1842

$y = 6.45 + 2.74(x)$

y = probit % inhibition

$x = \log(\text{rate})$

$EC_{05} = \overset{0.019}{\cancel{0.17}}$ lb a.i./A