TOMS 0730 DATA EVALUATION RECORD PAGE 1 OF

CASE G50025 NAPTHALENE ACETIC ACID PM 19 11/28/79

CHEM 056002 1-Naphthaleneacetic acid

BRANCH EEB DISC 2L TOPIC 20001500?

FORMULATION 00 = ACTIVE INGREDIENT

FICHE/MASTER ID 05007254 CONTENT CAT 01

Eliasson, L. (1971) Responses of pea roots to growth substances. Physiologia Plantarum 14:803-812.

SUBST. CLASS = S.

OTHER SUBJECT DESCRIPTORS
PRIM: EFF -10-35

DIRECT RVW TIME = 0.7 (MH) START-DATE 24 OCT 1980 END DATE 24 OCT 1980

REVIEWED BY: Robert W. Holst, Ph.D.
TITLE: Plant Physiologist
ORG: Sect. 1, Ecol. Eff. Br. HED OPP
LOC/TEL: Rm 807 CM2 / 557-0320

SIGNATURE: RWHolst DATE: 24 OCT 1980

APPROVED BY:
TITLE:
ORG:
LOC/TEL:

SIGNATURE: DATE:

2003830

Chemical:	1-Naphthaleneacetic acid
Citation:	Eliasson, L. (1961) Responses of pea roots to growth substances. Physiologia Plantarum 14:803-812.
Reviewer:	Robert W. Holst, Ph.D., Plant Physiologist Hazard Evaluation Division/Ecological Effects Branch
Validation Date:	10/24/80
Test Title:	Pea-Root Growth
Conclusion:	The effect is time and concentration related. Three times 10^{-7} M caused a 50% effect at 24 hrs. while with $1x10^{-6}$ M (.186 ppm), the effect is immediate.
Validation:	This study is scientifically sound.

Materials and Methods: Pea roots or portions of the roots were soaked in various concentrations of NAA for varying lengths of time up to 48 hours. Only pea seedlings were used.

Results: Root growth was inhibited 50% or more with 50 ppm of NAA appied at the hypocotyl however growth recovered within 48 hrs. Lesser concentrations inhibited growth but only 10 (0.5 ppm) to 30% (5 ppm). Where the roots were growing in various concentration ($3x10^{-7}M$ to $3x10^{-6}M$), the number of roots was reduced to 30% and the 50% inhibition of root growth was $3x10^{-7}M$ at 24 hrs., and immediately with $1x10^{-6}M$.