NEANC 34 WORKSHOP

NURSERY GERMINATION AND SEEDBED DENSITY

HANDOUTS AND VISUALS

for

JOHN R. SCHOLTES
NURSERY SPECIALIST
N.A. S&PF
BROOMALL, PA

August 9, 1984
DOVER, DE

BASIC SOWING FORMULA

$$\text{SHIPPABLE TREES PER LB. OF SEED} = \text{SEED PER LB.} \times \frac{\text{PURITY}}{\%} \times \frac{\text{GERM}^{*}}{\%} \times \frac{\text{SURVIVAL}^{**}}{\%} \times \frac{\text{SHIPPABLE}}{\%}$$

* GERMINATION % MAY OR MAY NOT BE THE FULL GERMINATION POTENTIAL OF THE SEEDLOT.

** PERCENT OF <u>VIABLE</u> SEEDS THAT PRODUCED <u>LIVE</u> TREES AT THE END OF THE ROTATION (FINAL INVENTORY)

HOW MUCH SEED TO SOW

$$\text{LBS. OF SEED TO SOW} = \frac{\text{NUMBER OF SEEDLINGS TO SHIP}}{\text{SHIPPABLE TREES PER LB. OF SEED}}$$

BASIC DENSITY FORMULA

$$\text{SEED EFFICIENCY} = \frac{\text{PURITY \%}}{} \times \frac{\text{GERMINATION \%}}{} \cdot \text{SURVIVAL}^{**}$$

GERMINATION % MAY OR MAY NOT BE THE FULL GERMINATION

** POTENTIAL OF THE SEEDLOTI

PERCENT OF VIABLE SEEDS THAT PRODUCED LIVE TREES AT THE END OF THE FIRST GROWING SEASON (1.0 INVENTORY).

HOW DENSE TO SOW SEED

SEED TO SOW / SO. FT. = DESIRED DENSITY X SEED EFFICIENCY

1.0 SURVIVAL FORMULA

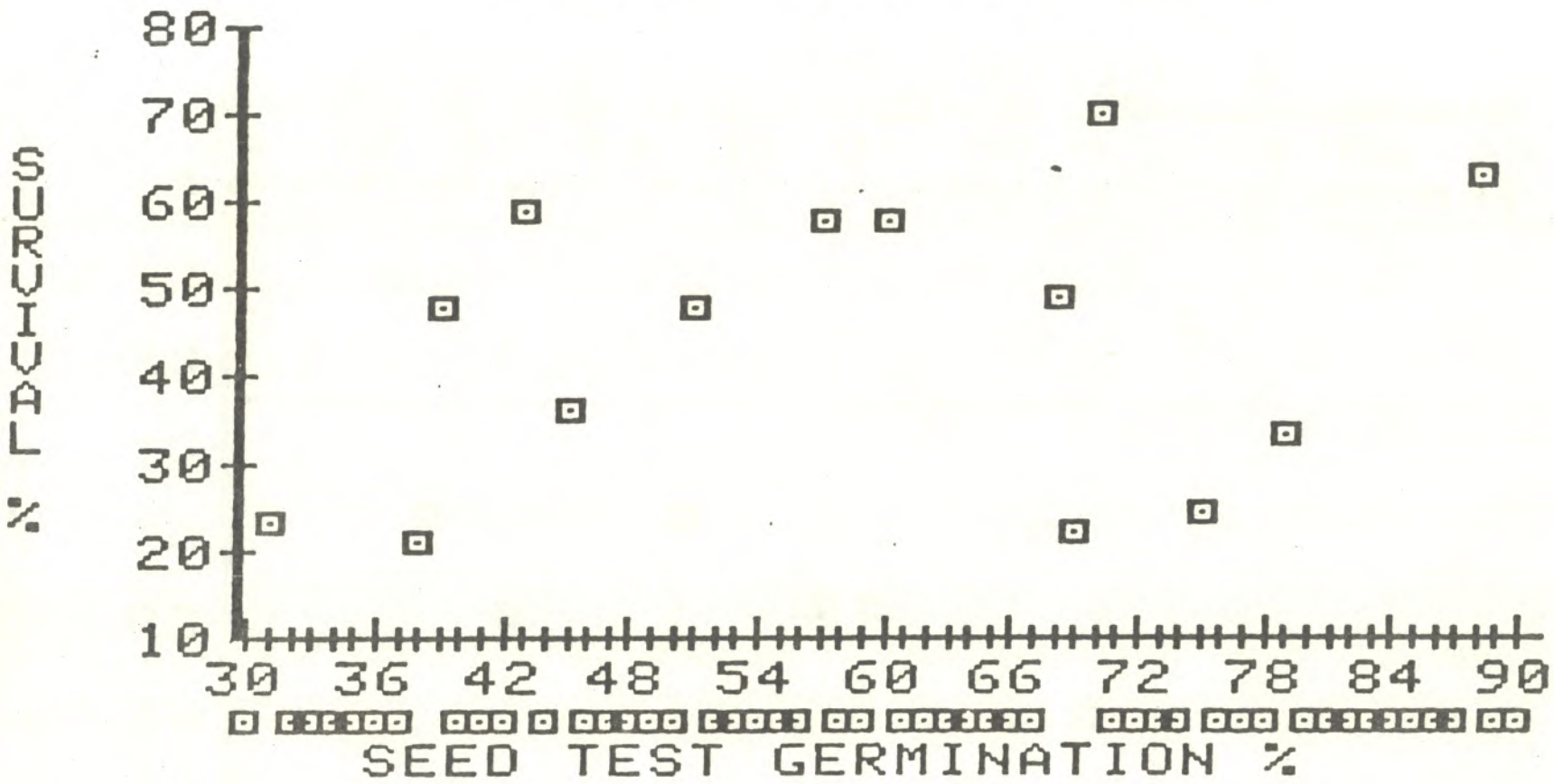
$$\text{1.0 SURVIVAL \%} = \frac{\text{1.0 GROSS INVENTORY}}{\text{TOTAL VIABLE SEED SOWN}^*}$$

FINAL SURVIVAL FORMULA

$$\text{FINAL SURVIVAL \%} = \frac{\text{FINAL GROSS INVENTORY}}{\text{TOTAL VIABLE SEED SOWN}^*}$$

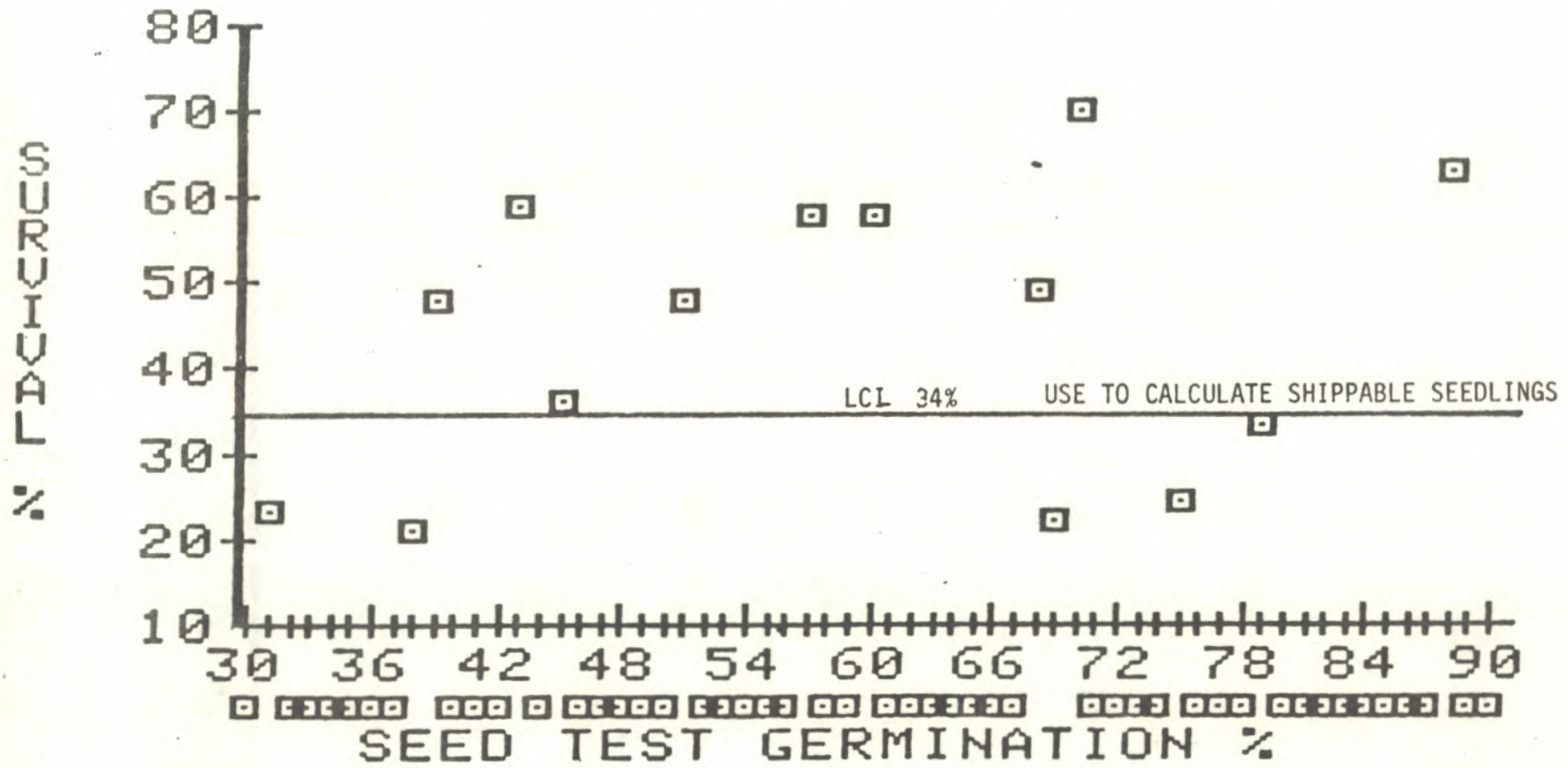
* TOTAL VIABLE SEEDS SOWN = SEED/LB X PURITY % X GERM % X LBS. OF SEED SOWN

PIEN 77 1.0 SURVIVAL



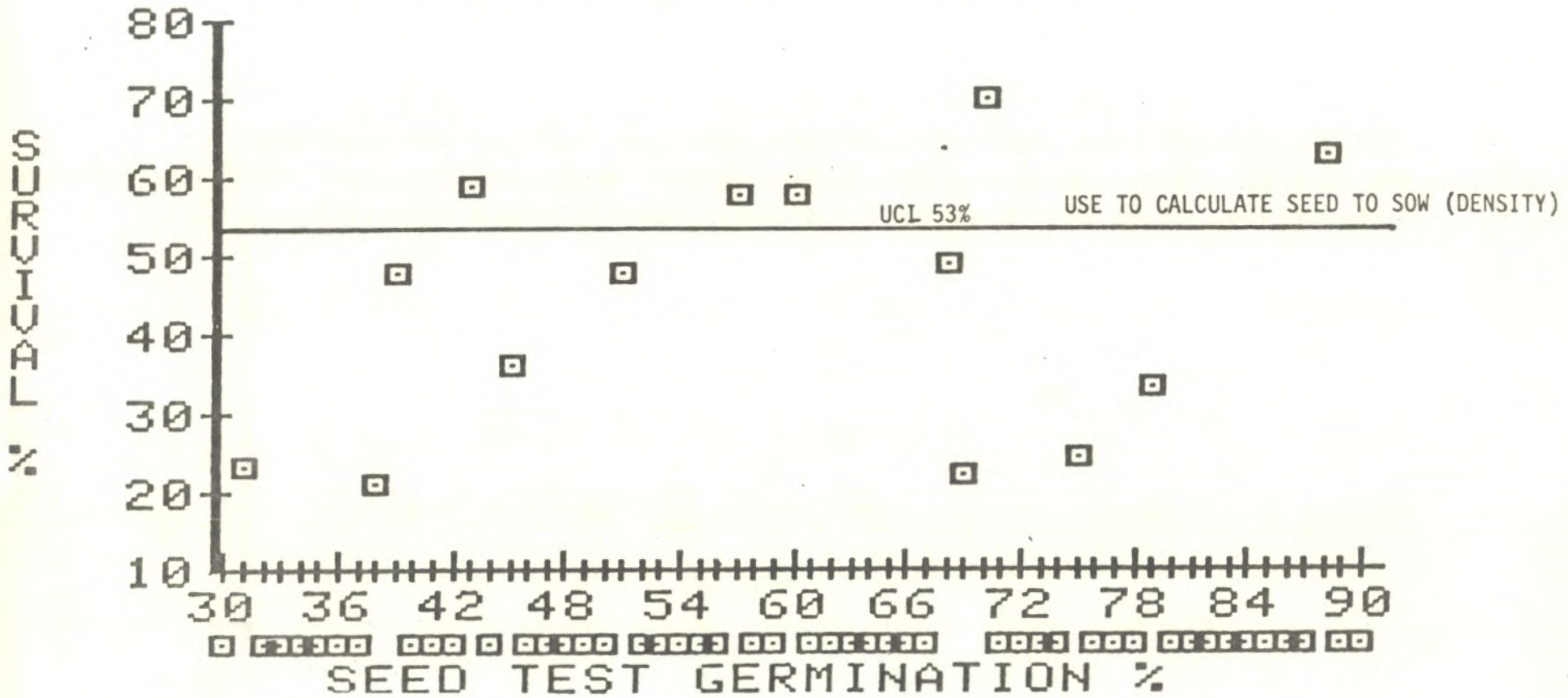
SURVIVAL BASED ON NO. OF VIABLE SEEDS

PIEN 77 1.0 SURVIVAL

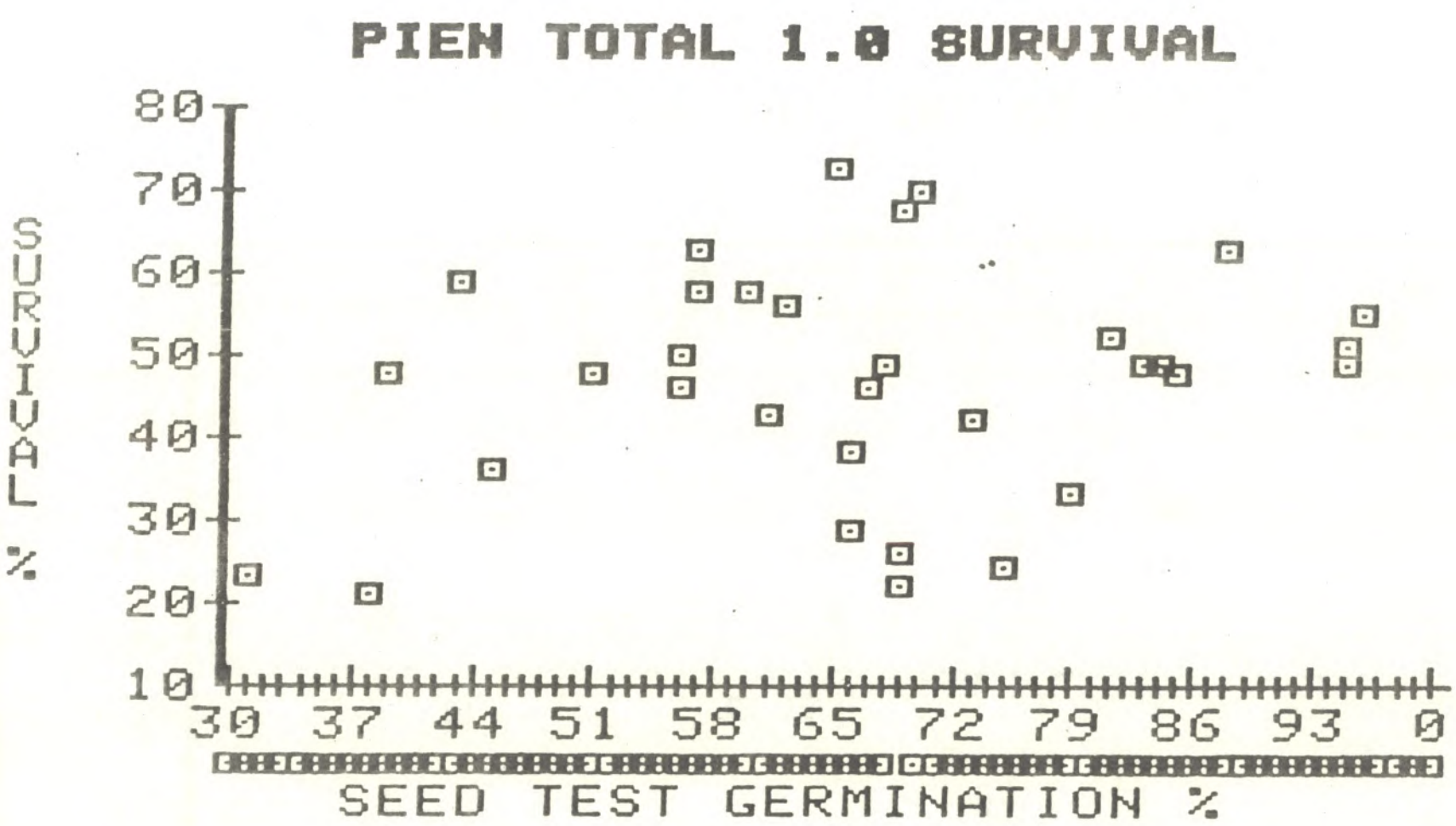


SURVIVAL BASED ON NO. OF VIABLE SEEDS

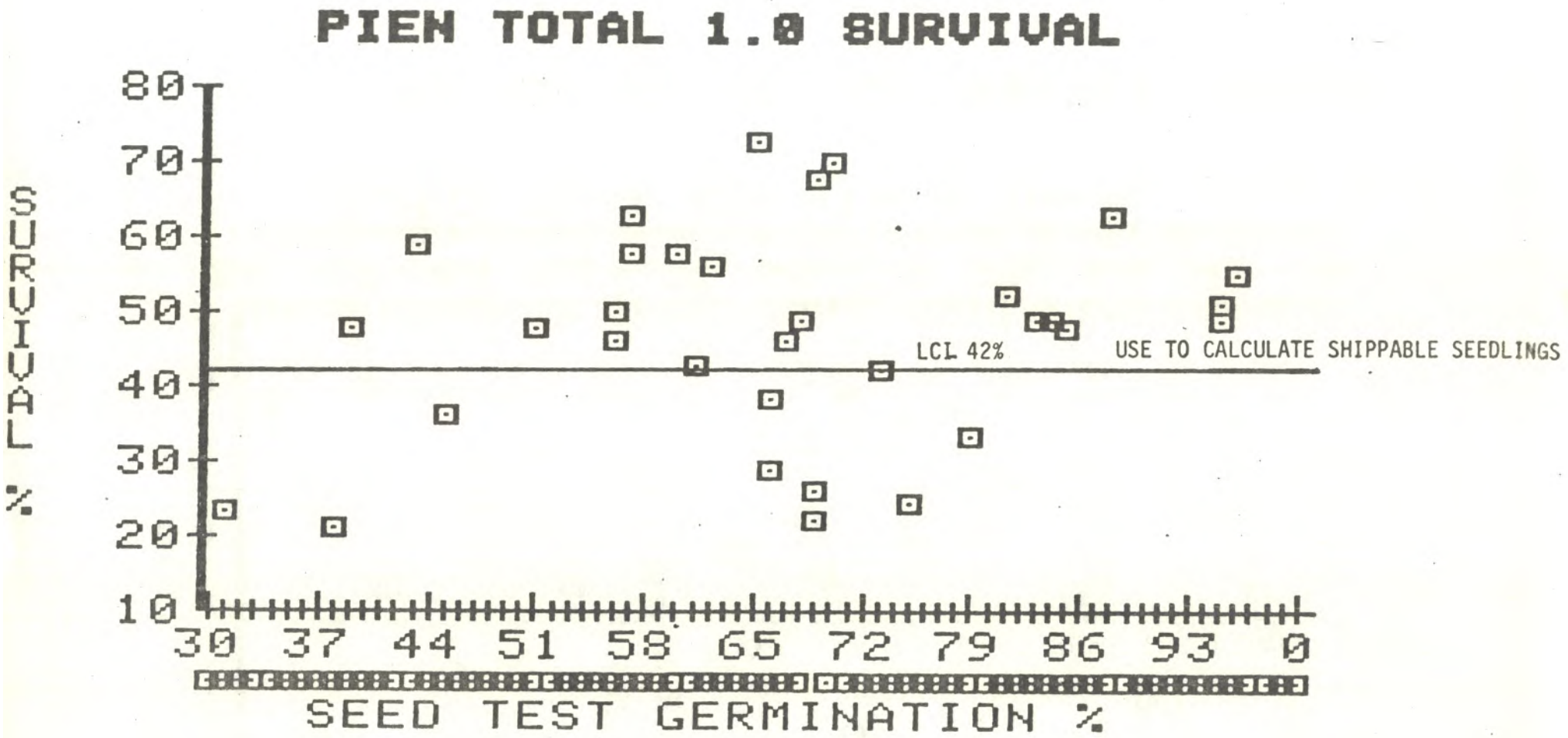
PIEN 77 1.0 SURVIVAL



SURVIVAL BASED ON NO. OF VIABLE SEEDS

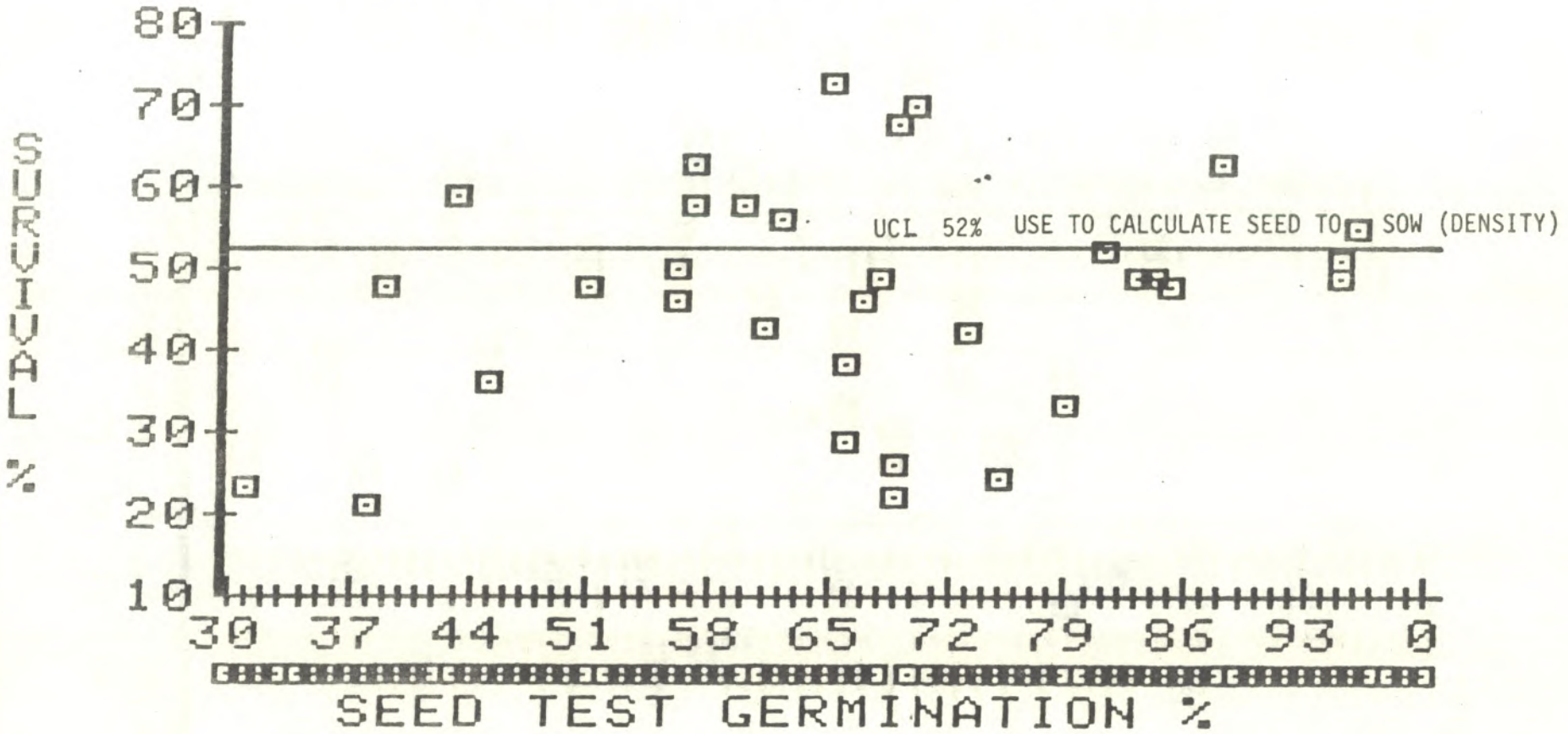


SURVIVAL BASED ON NO. OF VIABLE SEEDS



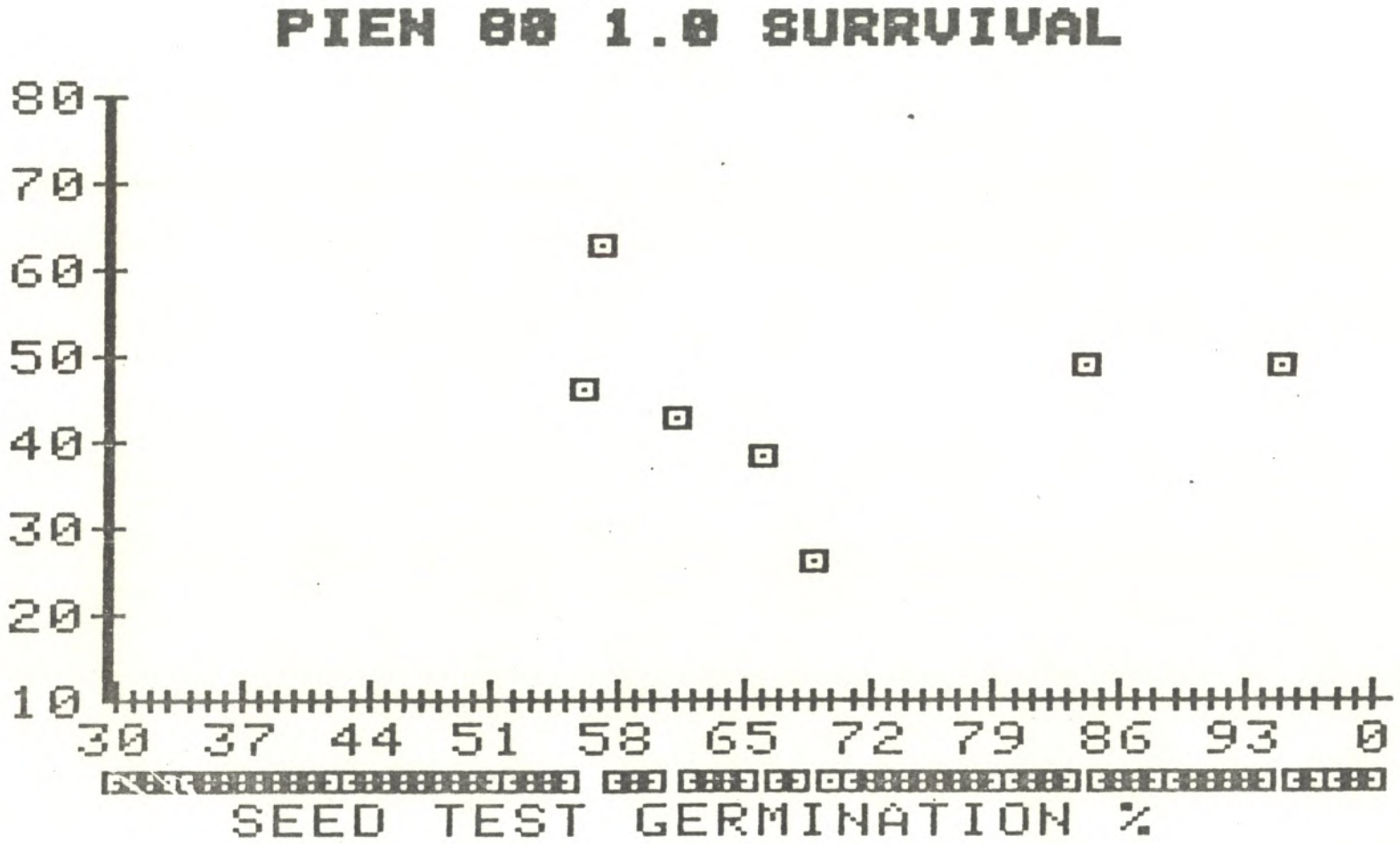
SURVIVAL BASED ON NO. OF VIABLE SEEDS

PIEN TOTAL 1.0 SURVIVAL



SURVIVAL BASED ON NO. OF VIABLE SEEDS

Document No. 65-01/85/03/03



SURVIVAL BASED ON NO. OF VIABLE SEEDS