

REPORT OF WORK

Primary Field Viticulture
Component Grape Production
Cross Reference _____

Continuing

Period covered by Report 11/1/60 to 10/31/61

Date of Writing November 20, 1961

SUBJECT OF REPORT Gibberellin Trials in Grapes

Copies to: George Alcorn, N. D. Hudson

Name(s) Curtis D. Lynn

R. C. Crouch

A. N. Kasimatis

County Fresno

PROCEDURE USED:

Two new experimental wettable powder formulations of gibberellin and "Gibrel" plus additional wetting agents were compared to "Gibrel" in girdled Thompson Seedless table grapes during the 1961 season. All materials were applied as sprays at normal girdling time. At harvest time a portion of a cluster (approx. 1/3 pound) was taken from every vine in each plot (90 vines) to make an approximately 30 pound composite sample per plot. From each composite sample three 200 berry samples were taken to obtain berry weights and soluble solid measurements. Additional details in treatment procedure are given in the attached sheet.

RESULTS:

All of the formulations of gibberellin increased the berry size of girdled Thompson Seedless table grapes. The 20 ppm treatments increased berry size approximately 8 to 10 percent and the 10 ppm treatments 4 to 5 percent. There were slight differences in berry size among the different 20 ppm treatments. Also, among the different 10 ppm treatments. However, these differences are probably not significant. A summary of the results is given in the attached sheet.

CONCLUSIONS:

1. On the basis of equal amounts of active gibberellin, the experimental wettable powder formulations "Gibrel" WP 32 grams active per pound and Pfizer 5732-71-1 10% active produced approximately the same size berries as "Gibrel" EC 16 grams active per gallon.
2. The addition of 4 ounces of the wetting agent Triton B 1956 to 100 gallons gibberellin spray solution did not increase the effectiveness of the gibberellin.
3. The results obtained with gibberellin in Thompson Seedless table grapes in 1961 were consistent with those obtained in 1958, 1959 and 1960.

DATA FOR GIRDLED THOMPSON SEEDLESS GRAPES SPRAYED WITH VARIOUS GIBBERELLIN TREATMENTS

John Weber, Sanger, 1961

Row No.	Treatment (Sprayed 6/5/61)	Conc. Gibberellin and Amount Wetting Agent	Gallons Spray Per Acre	Av. Wt.* One Berry in Gms.	% Sol. Solids*
11	Pfizer 5732-71-1 10% WP + Ultrawet KX	10 ppm 40 gms/100 gal.	205	3.84	16.33
12	Gibrel EC	10 ppm	215	3.77	15.83
13	Gibrel EC + Triton B 1956	20 ppm 4 oz/100 gal.	200	3.97	15.73
14	Gibrel EC	20 ppm	200	3.97	15.26
15	Gibrel WP - 32 gms/lb.	20 ppm	200	3.92	15.5
16	Pfizer 5732-71-1 10% WP + Ultrawet KX	20 ppm 40 gms/100 gal.	205	3.89	16.0
18	Check (Girdle only)	--	-	3.64	17.83

Sampled Aug. 8, 1961

*Average of three 200 berry samples.

Remarks: 8 x 11 planting, 90 vines per row
All vines girdled 6/3/61 & thinned 5/30/61.