

SOYBEAN VARIETY/PLANT POPULATION STUDY - 1988

For several years, there has been grower interest in the production of soybeans in Northern California. As is the case in the Southern San Joaquin Valley, mites and high temperatures have effected yields and crop quality. Due to the cooling effects of the Carquinez winds influencing Solano County, it was decided to attempt further study of soybean introduction in the county where relative humidity and temperature could be a positive influence.

A variety by plant population and planting date study was initiated on May 5 and again on June 7, 1988. All plantings were on 30" beds with either a single seed line or twin seed lines approximately 6" apart. The results indicate that acceptable yields can be attained in the county, even though summer temperatures were above normal. The variety DSI-375, commonly grown in the lower San Joaquin Valley, proved to be acceptable in terms of crop quality and yield. Two other varieties were also evaluated, AP 0-500 and AP 1-500. The variety AP 0-500 is approximately 15 days earlier than AP 1-500, but produced yields significantly lower than the other two when plant populations were increased. From this trial it can be concluded that closer spacings on 30" beds (single or double seed lines) gave significant plant competition so as to significantly reduce yields over single line spacings at 6 or 8 plants per foot of row. Further studies will be necessary to evaluate additional varieties, fertility, irrigation, and plant populations before soybeans can be a recommended crop for Solano County.

<u>Variety</u>	<u>Plant Spacings - 30" Row</u>	<u>Yield lbs/A</u> <u>Planting Dates</u>	
		<u>5/5/88</u>	<u>6/7/88</u>
DSI - 375	6/foot Single Row	2464	2382
DSI - 375	8/foot Single Row	2136	1840
DSI - 375	3/foot Double Row	2509	2145
DSI - 375	4/foot Double Row	2453	2186
AP 0-500	6/foot Single Row	2742	2685
AP 0-500	3/foot Double Row	2226	2134
AP 1-500	6/foot Single Row	2593	2589
AP 1-500	3/foot Double Row	2412	2307

Conducted by Larry Clement, Farm Advisor, Solano County.