

## VEGETATION SENSITIVITY

Klopatek, Harris and Olson (1980), Oak Ridge National Laboratory.

### Objective

To assess potential regional impacts of increased levels of  $\text{SO}_2$  on species of known high sensitivity (soybeans and pine).

### Criteria

- (1) Soybean yield from 1969 Census of Agriculture expressed as total yield divided by county acreage (bushels per acre).
- (2) Softwood (pine) productivity determined as cubic feet of growing stock divided by county acreage.
- (3) Projected regional  $\text{SO}_2$  concentrations for 1985 from coal-fired electrical generating facilities.

### Sensitivity Class Definitions

<u>Effect</u>	<u><math>\text{SO}_2</math> level</u>	<u>Soybean/softwood Production Level</u>
no impact	low	low
low impact	medium	medium
medium impact	medium (high)	high (medium)
high impact	high	high

### Map Product

A computer generated map for most of continental USA. Data input and evaluation carried out at county level.

### Evaluation

Specific effect of  $\text{SO}_2$  at these levels has not been established although when combined with other emission sources and air pollutants chronic injury may result. Impact has been assessed subjectively; yield decline has not been correlated to degree of impact.