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# "An Ounce Of Prevention Is Worth A Pound Of Cure"

## BASED ON PEST PREVENTION COST RECORDS

Paul Newman
West End Greenhouses
Olean, New York

Is "An Ounce of Prevention Worth a Pound of Cure?" A penny spent to prevent insect, bacteria and fungus damage to greenhouse crops returns a minimum of three pennies in additional crop production value.

How?—

Greenhouse crops return a gross of from $3.00–$7.50 per square foot of production area per year. A well grown *cut flower* crop will gross $3.00–$5.25 per square foot of production area per year based on a year around operation averaging three crops per year.

*Cost of prevention may be summarized as follows*:

| | per sq. Ft. per production Year |
|---|---|
| Insecticide and Fungicide Material | .03 |
| Fuel for steam sterilization | .007 |
| Labor for material application and sterilizing | .035 |

Total $.07–$.08 per square foot per production year

The average gross cost of production, and the managing and selling of that production, is $3.00 per square foot per year. The average gross income per square foot per year is $3.00 to $3.75.

If a preventative program for insects and diseases is *NOT* used, but in its place a *control* program is followed, a minimum of 10% less will be experienced in crop deterioration; or a loss, in gross income, of about $.30 per square foot per year. A maximum loss of 50 to 100% may be experienced with an adequate, poor, or zero control program. The reason for such losses is the fact that once insects and diseases are present on plants, they have caused *some* damage and loss of quality and hence, of monetary return. In our industry, most of us cannot afford a minimum of 10% loss by having only an *adequate* insect and disease control program. We must have a prevention program should we choose to continue our business.

We should consider, so far as insects are concerned, the prevention of even a minimum population of the following: Sow bugs, Millipedes, Wire worms, slugs, nematodes (soil), earthworms, roaches, Symphylids, thrips, spider mites, cyclamen mites, aphids, tarnish plant bugs, white fly, leaf roller, cut worms, leaf miners and scales.

Rusts, fungi and bacteria should never be permitted to

develop epidemically. At West End Greenhouses, our approach to prevention is five-pronged and has attained for us the goal of prevention on the following cut flower crops—chrysanthemums, asters, lilies, iris and miscellaneous spring annuals. The program used is as follows:

Step No. I—All debris, trash and weeds are not permitted to accumulate in the growing areas, under the benches, in the walks or in hard to reach corners.

Step No. II—All material brought into the range must, as far as can possibly be determined, be free of insects and diseases.

Step No. III—All areas, where crops are grown are steam sterilized, the upper nine inches of the area being brought to a minimum of 200 degrees F. at least once each 12 months.

Step No. IV—A systemically timed application of insec-

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## An Ounce of Prevention

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ticides and fungicides is accomplished. The aproach referred to uses the combination insecticide-fungicide dust mixture outlined below:

*Dust and Dust Mixture Used*

1) 8 pounds 3% DDT dust
   2 pounds 99% Metaldehyde
   All ground and growing areas given application of mixture once each twelve months.

2)

| | | |
|---|---|---|
| Parzate 75% wettable powder | 3 | lbs. |
| Fermate 76% wettable powder | 3 | lbs. |
| Aramite 15% wettable powder | 4 | lbs. |
| Malathion 25% wettable powder | 5 | lbs. |
| Thiodan 50% wettable powder | 2½ | lbs. |
| Sulphur 95% wettable powder | 4 | lbs. |
| DDT 3% dust | 20 | lbs. |

   Applied, as dust, to all crops once weekly until flower color shows.

3) Parzate 75% wettable powder
   Applied, as dust, to all crops *daily* from time color shows through bloom development and continuing until harvest.

Step No. V—Supplemental Controls

If insects are observed, Aerosol fumigation, additional dust applications, or spot application of Systox is used until areas involved are clean.

Should soil insects or diseases develop, steam sterilization between each crop is practiced until the problem is eliminated.

We can't afford even a 10% loss!

Attack first—prevent problems—and losses!