AGRICULTURAL EXPERIMENT STATION Oregon State College Wm. A. Schoenfeld, Director Corvallis

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THE CARROT RUST FLY by Don C. Mote, Entomologist

The carrot rust fly attacks carrots, parsnips, celery and parsley. Damage is caused by the feeding of the maggots on the root system. Of the four main hosts of the insect, carrots are damaged most severely.

This pest has only recently become a serious menace to Oregon food crops, severe injury having been reported this past year from Coastal and Willamette Valley counties.

Suggested Control Measures

Control measures involve regulating the time of planting and the application of repellent materials to prevent the fly from laying its eggs near the base of the plant. Information now available on the life habits of the rust fly indicates that early carrots should be planted for harvest by July 15. Do not plant late carrots before June 1.

Crude naphthalene flakes have been advised, by entomologists in the states of New York and Washington and by various investigators in Europe, for repelling the rust fly. Three applications are made on early carrots at weekly intervals, beginning when the flies emerge (about May 10). On late carrots make applications at weekly intervals, beginning when flies of the second generation emerge (about July 20). Continue treatment until one month before harvest. Carrots cannot be used for at least one month following applications of this material, because they will retain the odor of the naphthalene.

The crude naphthalene is used at the rate of 250 pounds per acre per application, or one and one-half $(l_{\overline{z}}^{\frac{1}{2}})$ pounds to 100 feet of row. The finely divided crude naphthalene is applied to the fields or rows in the same manner as sowing grain by hand. Care should be taken not to apply the naphthalene in quantities greater than the rate recommended, nor later than one month before harvest, to avoid the characteristic flavor and odor of naphthalene in the carrots.