

Erratum
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The following abstracts from the North Central Division Annual Meeting held June 16-18, 1982, were inadvertently omitted from those published on pages 1134-1141.

EFFECT OF TEMPERATURE ON DEVELOPMENT OF RING ROT IN POTATO. A. L. Bishop and S. A. Slack, Dept. of Plant Pathology, Univ. of Wisconsin-Madison, Madison, WI 53706

Potatoes, cv. Norland, were grown at 24 C under 16-hr photoperiod from seed pieces inoculated with 10^6 cfu *Corynebacterium sepedonicum* per seed piece. After 31 days, populations of *C. sepedonicum* in stems at soil level were 2.5×10^9 cfu/g fresh weight, but little wilting was evident (0.01% of total foliage wilted). One-half of the plants then were exposed to 5 C nights and 24 C days and one-half remained at constant 24 C. Photoperiod was shortened to 12 hrs. After 2 weeks, the average percent foliage wilted ($\bar{w}_{cold}=0.52\%$) and number of leaflets affected ($\bar{l}_{cold}=3.5$) in cold night plants were less than in those at warm temperature ($\bar{w}_{warm}=2.9\%$, $\bar{l}_{warm}=9.7$), $p<0.001$. Populations of *C. sepedonicum* in stems of plants subjected to cold nights were not different at soil level (cfu/g= 3.0×10^9) or at 10 cm above the soil (cfu/g= 1.2×10^9) from those held at constant 24 C, $p>0.25$. Differences in plant maturity between treatments may explain differences in symptom development. (O)

EPIDEMIOLOGY OF BARLEY YELLOW DWARF IN INDIANA. D. Clement, R.M. Lister & J.E. Foster. Dept. of Botany and Plant Pathology and USDA, ARS, Purdue Univ., West Lafayette, IN 47907.

To investigate the seasonal spread of barley yellow dwarf viruses (BYDV), pots of Clintland 64 oats were systematically exposed at weekly intervals for 5-day periods during March-November, 1981, in wheat and grass plots at the Purdue Agronomy Farm. After exposure, the presence of aphids (*Rhopalosiphum padi*) was recorded and the plants were grown in a greenhouse prior to sampling for ELISA tests. Aphid infestations on the plants peaked in April and May and again in the fall, and were minimal in July. ELISA estimates of BYDV infections (PAV- and RPV-like isolates) followed roughly the same trend, and indicated that up to 50% of the pots contained infected plants after exposure. The potential for efficient spread of BYDV was also indicated by the numbers of infections detected in adjacent wheat plants (50%-80% of plants tested in June 1981, and 20% in March 1982). However, very few infections (1.5%) were detected in September in nearby corn, on which *R. padi* numbers were high. (P)

INTERACTION BETWEEN *SEPTORIA GLYCINES* AND *PSEUDOMONAS SYRINGAE* PV *GLYCINAE*. M. A. Cubeta and J. B. Sinclair, Dept. of Plant Pathology, Univ. Illinois at Urbana-Champaign, Urbana, IL 61801

Culture filtrates from a 24-hr culture of *Pseudomonas syringae* pv. *glycinea* or a 14-day-old culture of *Septoria glycines* was added to flasks containing soybean broth inoculated with either a 1×10^5 conidial suspension of *S. glycines* or a 2×10^7 CFU/ml suspension of *P. syringae* pv. *glycinea*. Bacterial population counts were recorded after 48 hours at 25C and mycelial dry weight after 2 weeks at 25C. Potential antagonism also was studied on Van Teigham cells inoculating one side of the agar disc with the bacterium and the opposite side with the test fungus. Soybean plants were inoculated separately but at the same time with one or both of the pathogens and placed in a growth chamber. No antagonistic or synergistic reaction was noted. (O)

DETECTION OF *VERTICILLIUM ALBO-ATRUM* IN THE AIR OVER INFECTED ALFALFA FIELDS IN WISCONSIN. J. Lindemann, D. C. Arny and P. A. Delwiche. Department of Plant Pathology, University of Wisconsin, Madison, WI 53706.

Verticillium albo-atrum (Vaa) was detected in the air at canopy height on four of five sampling dates in 1981 in alfalfa fields with plants infected with *Verticillium* wilt. Air samples were drawn through Andersen particle sizing samplers containing plates of ethanol streptomycin agar (ES). Deposition was measured by exposing petri plates containing ES. After 5-6 days of incubation characteristic colonies were transferred to PDA and tested for pathogenicity to alfalfa cv. 'Vernal'. A total of 102 samples yielded 14 *Verticillium* isolates, all of which were pathogenic Vaa. The highest concentration of airborne Vaa detected was 4.7 CFU m^{-3} . The ratio of Vaa to other fungi on ES was <0.01 . Pathogenic Vaa also was isolated from the surface of alfalfa stubble near the sampling sites. Although 50% of the isolates from Andersen samples were present as particles $\geq 7\mu\text{m}$ diam., Vaa also was detected on sampler stages that collect particles in the 2-4 μm diam. range. These small particles may travel long distances.