**First Report of Broad Bean Wilt Fabavirus on *Polygonum fagopyrum*.** M. G. Bellardi and C. Rubies-Autonell, Istituto di Patologia Vegetale, Universiti degli Studi, Via F.Re, 40126 Bologna, Italy. Plant Dis. 81:959, 1997; published on-line as D-1997-0609-03N, 1997. Accepted for publication 4 June 1997.

Buckwheat (*Polygonum fagopyrum* L.) is an annual medicinal plant useful in convalescence and treatment of anemia. It is widely grown in Europe, where it is sometimes used as human food. In a survey made during 1995 to 1996 in the Emilia-Romagna region (northern Italy), a virus was consistently isolated from plants showing yellow or chlorotic mottle on the leaves. It was mechanically transmitted to herbaceous hosts, including *Chenopodium amaranticolor* Coste et Reyn., *C. murale* L., *C. quinoa* Willd., *Gomphrena globosa* L., and *Vicia faba* L. (which showed systemic vein clearing, necrosis of terminal leaves, wilting, and death) and identified by indirect enzyme-linked immunosorbent assay (PAS-ELISA, using A protein) as broad bean wilt fabavirus (BBWV) serotype I. Moreover, elongated, potyvirus-like particles, 750 nm in length, were observed by electron microscopy of leaf dips from symptomatic leaf samples of *P. fagopyrum*. These particles were identified as turnip mosaic potyvirus (TuMV) on the basis of differential host reactions and by serological assays, including PAS-ELISA, immunoelectron microscopy, and gold-labeled antibody decoration. Both BBWV and TuMV may have been transmitted to *P. fagopyrum* by the abundant aphid populations from other medicinal plants cultivated in the same location. In particular, *Digitalis lanata* Ehrh. and *Hesperis matronalis* L. were found to be infected by the same two viruses (50% of diseased plants). This note represents the first report of BBWV, alone or in mixed infections with TuMV, in *P. fagopyrum.*

**Phytophthora Root and Crown Rot of Sage Caused by *Phytophthora cryptogea* in California.** S. T. Koike and D. M. Henderson, University of California Cooperative Extension, Salinas 93901; and J. D. MacDonald and M. S. Ali-Shtayeh, Department of Plant Pathology, University of California, Davis 95616. Plant Dis. 81:959, 1997; published on-line as D-1997-0617-02N, 1997. Accepted for publication 10 June 1997.

In 1996, commercial plantings of sage (*Salvia officinalis*) in the Salinas Valley in Monterey County, CA, were affected by a root and crown disease. Roots were necrotic, and crowns and lower stems turned black. Affected plants withered and died. A *Phytophthora* sp. was consistently isolated from roots and stems of the symptomatic plants. The species was identified as *Phytophthora cryptogea* based upon the formation of hyphal swellings, morphology of sporangia and oospores, and growth at cardinal temperatures (1). Pathogenicity of representative isolates was confirmed by applying 2 ml of a zoospore suspension ($2.0 \times 10^5$ zoospores per ml) to roots and crowns of 3-month-old potted sage plants. After treatment, plants were placed for 24 h in shallow trays of water to saturate the root zone, then were removed from trays and incubated in a greenhouse. After 4 days, foliage of all inoculated plants began to wilt. After 7 days, plant crowns and stems turned black and the plants collapsed. *P. cryptogea* was reisolated and recharacterized from all plants. Control plants, which were treated with water and then handled in the same way as inoculated plants, did not develop any symptoms. The tests were repeated and the results were similar. This is the first report of *P. cryptogea* attacking commercial plantings of sage. The authors also detected this disease in experimental plantings of sage in Stanislaus County in 1990.

*Reference*: (1) D. C. Erwin and O. K. Ribeiro. 1996. Phytophthora Diseases Worldwide. American Phytopathological Society, St. Paul, MN.

**First Report of Cowpea Aphid-Borne Mosaic Potyvirus from Cowpeas Grown Commercially in the U.S.** A. S. Kline and E. J. Anderson, Department of Plant Pathology, University of Arkansas, Fayetteville 72701. Plant Dis. 81:959, 1997; published on-line as D-1997-0617-01N, 1997. Accepted for publication 11 June 1997.

Cowpea aphid-borne mosaic potyvirus (CABMV) is one of several seed-borne viruses known to limit cowpea (*Vigna unguiculata* (L.) Walp. subsp. *unguiculata*) production in Africa, Europe, and Asia, but CABMV has not been reported on commercially grown cowpeas in the United States (1). However, a sesame (*Sesamum indicum* L.)–infecting isolate of CABMV was recently characterized from plants growing near cowpea introduction plots in Georgia (2). In February 1997, we received samples of three seed lots of cowpea cv. Chinese Red that had been harvested in southern Texas during 1996. Approximately 28% of the plants grown from these seed lots expressed strong mosaic symptoms on primary and trifoliate leaves. Viruslike symptoms were reproduced following mechanical transmission to plants of Chinese Red cowpea, *Nicotiana benthamiana*, and soybean (*Glycine max* L.) cv. Lee. When Coronet and Pinkeye Purple Hull-BVR cowpeas were inoculated with sap extracts from symptomatic Chinese Red plants, chlorotic lesions developed on inoculated leaves, but only Coronet plants supported symptomless systemic infections. Similarly inoculated plants of *Chenopodium quinoa* (L.) and common bean (*Phaseolus vulgaris* L.) cvs. Pinto and Black Valentine developed localized chlorotic lesions. In Ouchterlony gel diffusion assays, extracts from symptomatic cowpea plants did not react with antisera to blackeye cowpea mosaic potyvirus (BlCMV), cucumber mosaic cucumovirus (CMV), southern bean mosaic sobemovirus, cowpea mosaic comovirus, cowpea severe mosaic comovirus, or cowpea chlorotic mottle bromovirus. In the indirect enzyme-linked immunosorbent assay, sap extracts from symptomatic plants reacted with antiserum to CABMV, giving OD values at $A_{405}$ of 0.10 to 0.25, and reacted weakly with antiserum to BlCMV, with OD values at $A_{405}$ less than 0.035. Extracts from healthy control plants gave OD values at $A_{405}$ less than 0.010. No positive reactions were obtained with antisera to bean yellow mosaic potyvirus, peanut mottle potyvirus, soybean mosaic potyvirus, or CMV. To our knowledge, this is the first report of CABMV in commercially grown cowpea from the U.S.

*References*: (1) A. G. Gillaspie et al. Plant Dis. 79:388, 1995. (2) H. R. Pappu et al. Arch. Virol. 142:1, 1997.

**A Disease of Pearl Millet in Zimbabwe Caused by *Pantoea agglomerans*.** D. E. Frederickson, Department of Biology, University of Zimbabwe, MP167, Harare, Zimbabwe; E. S. Monyo and S. B. King, ICRISAT, Box 776, Bulawayo, Zimbabwe; and G. N. Odvody, Texas A&M Research Centre, Box 589, Corpus Christi 78406. Plant Dis. 81:959, 1997; published on-line as D-1997-0618-01N, 1997. Accepted for publication 2 June 1997.

Necrosis at the leaf tips and margins of pearl millet (*Pennisetum glaucum* (L.) R. Br.) was observed in 1995 in a *Pseudomonas syringae* resistance screening nursery near Bulawayo, Zimbabwe. Straw-colored lesions with a chlorotic edge often extended the leaf length, and were atypical of the round spots, with a brown margin, caused by *P. syringae* (1). Bacteria were isolated from cut lesions macerated in water by dilution streaking onto King's medium B and nutrient agar. A gram-negative, nonfluorescent, fermentative, rod-shaped bacterium, forming yellow colonies on nutrient agar was consistently observed. Three pots of 10, 2- to 3-week-old seedlings of a susceptible cultivar, 852B, were inoculated with a $10^8$ CFU per ml suspension from cultures by misting or injection into the whorl. In three experiments, the treatment and uninoculated control were incubated at 25°C and 95% relative humidity for 48 h before transfer to the greenhouse. The original symptoms of watersoaking at leaf tips and margins were observed after 4 days. Necrotic lesions surrounded by chlorotic tissue were observed a day later. Fluorescence on King's medium B, and levan, oxidase, potato-rot, arginine dihydrolase, 2-keto gluconate, nitrate reduction, gelatin, phenylalanine deaminase, and acid from starch tests were negative. Tobacco hypersensitivity, acid from sucrose and glycerol, aesculin hydrolysis, lipase, indole production, and growth on tetrazolium chloride were positive. The identification of the pathogen to the species level as *Pantoea agglomerans* (Ewing and Fife 1972) Gavini et al. 1989, formerly *Erwinia herbicola*, was by fatty acid analysis by the International Mycological Institute (Egham, Surrey, UK). *P. agglomerans* was recorded as a pathogen of pearl millet in India in 1958 (2).

*References*: (1) G. N. Odvody and A. K. Vidaver. Sorghum Newsl. 23:134, 1980. (2) C. K. S. Rajagopalan and G. Rangaswami. Curr. Sci. 27:30, 1958.

(*Disease Notes* continued on next page)