HARVESON, R. M.*, and RUSH, C. M., Texas Agricultural Experiment Station, P.O. Drawer 10, Bushland, TX 79012. - Movement of viruliferous *Polymyxa betae* from a point source inoculation.

Research was initiated in 1992 to study the spread of viruliferous *Polymyxa betae* from a known point source inoculation by irrigation and soil tillage. Untreated HH39 sugar beet seeds were planted 14 May 1992 in four 30 x 100 ft. borders, each containing twelve 30-inch beds. Inoculated seeds, used to establish the point source of infested soil, were obtained by coating seeds with a mixture of 2% methyl cellulose and powdered sugar beet roots containing BNYVV-infested *P. betae* cystosori. They were placed in the first ten feet of the two outside rows of each border. Half the plots were irrigated twice a month, and the other half once a month. Plant samples were collected twice and assayed by ELISA for BNYVV incidence. Soil samples were also collected and assayed. At the end of the first year, very little movement of BNYVV was detected outside of the inoculated areas. Establishing infection in the plots was successful because BNYVV was detected from the point source areas in every assay. Future research will include collecting and assaying soil samples after land preparation for 1993, and repeating 1992 irrigation effect.