AGRICULTURAL RESEARCH CENTER  
WASHINGTON STATE UNIVERSITY  
PULLMAN, WASHINGTON  

AND  

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL RESEARCH SERVICE  
WASHINGTON, D.C. 20250  

RELEASE NOTICE OF ‘SILVER CLOUD’ WHITE KIDNEY DRY BEAN  

The Agriculture Research Center of Washington State University and the Agricultural Research Service, U.S. Department of Agriculture jointly announce the release of ‘Silver Cloud’ white kidney dry bean (Phaseolus vulgaris L.). This cultivar was developed to provide a high yielding, upright bush, mid season maturity, and disease resistance for bean producing areas of the Pacific Northwest. Scientists participating in the development of this variety were A.N. Hang (Washington State University), P.N. Miklas (USDA-ARS Prosser) and M.J. Silbernagel (retired, USDA-ARS Prosser).

Silver Cloud previously tested as USWA-70, is an F7 derived F9 line from the cross ‘Lisa’/’Linden’ Lisa is a small-seeded white kidney mutant out of ‘Royal Red’, dark red kidney with resistance to Bean common mosaic virus ( BCMV ) and Beet curly top virus (BCTV). Royal Red was developed at USDA-ARS, Prosser, WA by D.W. Burke in 1969. Linden developed at the University of California-Davis, has a large bright white seed, dominant I gene resistance to BCMV but is susceptible to BCTV. Silver Cloud has an upright bush growth habit that is resistant to lodging. Silver Cloud has the combined I and bc-1 genes, for resistance to BCMV and has unknown genes that condition complete resistance to BCTV. Silver Cloud was tolerant to bean rust (Uromyces appendiculatus (Pers.:Pers.) Unger in tests performed by M. Pastor-Corrales at USDA-ARS in Beltsville, MD. Under stress conditions of low residual soil nitrogen (~22 kg ha⁻¹) with no fertilizer applied, low soil moisture (irrigation water applies at ~50% of water used requirements based on evapo-transpiration schedules), and heavy root rot pressure, due mainly to Fusarium solani, Silver Cloud produced 19 and 59% higher yield than Lassen and Beluga, respectively.

Silver Cloud has medium to late maturity averaging 96 d, 8 d. later than Lassen. Silver Cloud produced an average of 2490 kg ha⁻¹ and about 5 to 10 % higher yield than Lassen across ~30 environment years. Silver Cloud has an unusual attractive shiny white and large seed (53.7 g 100 seeds⁻¹ compared to 47.0 g 100 seeds⁻¹ for Lassen. Silver Cloud was rated as an acceptable canner in trials conducted by USDA-ARS and the Michigan Agricultural Experiment Station and in the NY Agricultural Experiment Station. Silver Cloud has been released as a non exclusive public variety without plant variety protection. Breeder and foundation seed will be maintained by Washington Crop Improvement Association, Inc. Department of Crop and Soil Sciences, WSU Seed House, Pullman, WA 99164-6420.