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The paper presents results of a field experiment conducted during 1990-1993 at Kota to study the effect of intercropping soybean [*Glycin max* (L.) Merr.] with sorghum [*Sorghum bicolor* (L.) Moench] and pigeonpea [*Cajanus cajan* (L.) Millsp.] in 2:1, 4:1 and 6:1 rows 30 cm apart on productivity, water use and competitive indices. Intercropping systems were found more productive than sole soybean. Intercropping soybean with pigeonpea in 4:1 row arrangement proved superior to other treatments and yielded 712 kg/ha soybean and 830 kg/ha pigeonpea seed, which amounted to 1493 kg/ha soybean-equivalent yield compared with 1086 kg/ha sole-soybean yield. This system also recorded the highest land-equivalent ratio (1.26). Intercropping systems showed higher water use and water-use efficiency than sole soybean. The values of competitive ratio (CR), relative crowding coefficient (RCC) and aggressivity indicated that sorghum and pigeonpea were dominant over soybean. The aggressivity values of soybean were negative in all the intercropping systems, whereas CR and RCC values remained less than one. Sorghum showed higher competitiveness with soybean than with pigeonpea.