In contrast to earlier results, a clear advantage from mixed cropping of maize and beans (Phaseolus vulgaris) was found in the long-rain seasons (March-Sept.) of 1976 and 1977. Pure stand yields were low due to drought in 1976 and excessive rainfall in 1977. These and other results for long-rain seasons in Kenya suggested that mixtures were more efficient where pure stand yield levels were low but there was little difference between cropping systems where levels were high. Light interception by maize leaves was quite small until late in the life of the bean crop.