Seed of broomcorn (Sorglum bicolor) which was removed in the broom production process could be used to cultivate edible mushrooms namely Pleurotus ostreatus, P. erosus, Auricularia polytricha, Ganoderma lucidum, and Lentinus edodes. Both mature and immature seeds were tested to substitute grain sorghum in spawn preparation, and rice bran in sawdust mixture. Seed abandoned from previous year was also tested. Slower growth of the last three mushrooms was observed in broomcorn spawn. When 4.6% and 9.2% in weight of seed powder were added as supplement to sawdust, most of the tests revealed no significant difference in yield as compared to the ordinarily used 4.6% rice bran.