This study aims to determine the elasticity of output supply and input demand; to determine the effect of changes in prices (output and input), research and development expenditures, and road infrastructure on output supply and input demand of corn; and to determine the competitiveness of corn in East Java and West Java. The data analyzed are those of costs structure of corn farming in the Province of East Java and West Java during 1985-2009. The data are taken from: Central Bureau Statistics, Ministry of Agriculture, Service Agencies for Food Crops in West Java and East Java. Estimation model employed is the method of Seemingly Unrelated Regression. The results of the analyses show that: (1) output supply of corn in both Province of East Java and West Java are elastic to its price changes, however it is inelastic to the price changes of seed, urea, TSP and labor, (2) demand for all inputs is inelastic to its price changes, and elastic to changes in output prices in East Java and West Java, (3) corn research expenditures have positive influences to the supply of corn in East Java and West Java, which are inelastic, and the same effects also occur to infrastructure which are positive and significant to corn supply and elastic in nature, (4) there is a phenomenon that if an increase in corn price will raise the amount of corn supply in the two provinces, and rising fertilizer prices that causes a decrease in demand for seed, fertilizer and labor, (5) bias of technological change is neutral, and (6) corn farming in East Java and West Java have comparative and competitive advantages, which are indicated by the DRC and PCR values that are less than one. Policy implications of these research are that raising corn supply can be achieved through increasing its price, expenditures of corn research, and road infrastructure in the two provinces of the study. Stability and increase the price of corn can be carried out by the provincial government willingness and commitment to buy and absorb the excess production of corn during the harvest time. Meanwhile the policy to increase competitiveness of corn can be achieved through omitting or reducing market distortion of input and output, increasing effectiveness of applied research program on farming technology innovation, providing facilities to increase accessibility of farmers especially at the production center to input and output market, facilitating capital credit for small scale corn farming, and increasing farmers income through post harvest handling and processing to develop added value of corn.

Key words: input demand, output supply, competitiveness, corn