This study was carried out at limestone quarry of Kartas Company at Bozanönü village of Isparta region in 2010. Two blast trials with classical drill cuttings stemming method and new plaster stemming method were carried out and measured environmental and ecological effects in terms of vibration and air shock and observed flying rock. Measured values are evaluated in terms of environmentally and ecologically. In the one series of blast tests, blast cost was reduced to 16% by increasing burden and spacing distance for unit volume rock. In this way, the 21% more blast area and the 21% more rock was obtained the same hole drilling. It means that lesser drilling and lesser blasting and lesser environmental and ecological effects.