Background: Elderly is someone both woman and man who has reached the age over 60 years with an aging process, accompanied by a decrease in biological, psychological, social, economic functions and has healthy problems that are often experienced by the elderly, such as changes in the respiratory system, innervation system, cell system and cardiovascular, namely hypertension. Objective: To know the effect of betel leaf decoction on the reduction of blood pressure of elderly’s hypertension in the village of Tanjungrejo, Kayutrejo, Widodaren, Ngawi. Method: The research design used in this study is descriptive study with case study design. Sampling uses data collection techniques from polindes, with 2 respondents as samples. Results: The result of the study proves that giving betel leaf boiled water can reduce blood pressure of elderly’s hypertension, with blood pressure 185/97 mmHg before implementation while blood pressure to be 166/84 mmHg and 167/97 mmHg to 155/88 mmHg after implementation. Conclusion: There is an effect of giving betel leaf boiled water to the reduction of blood pressure of elderly’s hypertension in the village of Tanjungrejo, Kayutrejo, Ngawi. Keyword: Elderly, hypertension, betel leaf boiled water