In the beat-wave scheme, two lasers exert a longitudinal ponderomotive force at difference on the electrons that resonantly drives a large amplitude plasma wave with potential much higher than the ponderomotive potential. A large amplitude plasma beat-wave, propagating through a plasma with density ripple (sound wave), generates two sideband plasma waves. One sideband moves with lower phase velocity than the pump plasma wave and the other with higher phase velocity. The low phase velocity plasma wave accelerates modest energy electrons to gain substantial energies to be accelerated by the main plasma wave. The large phase velocity plasma wave further accelerates these electrons to larger energy. Hence, an electron gains considerable energy during the acceleration by the plasma waves in the presence of a density ripple in plasma. The initial electron energy and the ripple density play an important role for the acceleration of an electron.