Energy-saving Air Pressure Pumping System to Agriculture for the Community

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ABSTRACT

The research aims to 1) Develop an energy-saving air pressure pumping system to agriculture for the community and 2) To find the efficiency of an energy-saving air pressure pumping system to agriculture for the community. Target group is Ban Phai Noi, Lum Pook, Buriram. The principle of siphon is applied to the method of transferring liquid from high to low continuously through the medium is a pipe or tube.

The research found that the air pressure pumping system was developed to compare the efficiency of water flow in 4 phases, each with different pipe widths and pipeline lengths of 10, 20, 30 and 40 meters, respectively. By measuring every 2 minutes, the diameter of the pipe size is Ø 3/4 inch. The pipeline distance of 30 meters has the highest average flow rate of 23.84 liters. The diameter of the pipes is Ø 1 inch, the pipeline distance is 20 meters, the average flow rate is 22.88 liters, the pipe size is Ø 4 inches, the length of the pipeline is 40 meters and the average flow is 13.12 liters. And pipe size Ø 2 inches. The pipeline distance is 10 meters. The water can flow but cannot make the suction pipe to replace the water that is released.

Keywords: Pumping System, Air Pressure, Agriculture, Energy-saving