How Does the Number of Blades on a Wind Turbine Affect Its Power Output?

Masters, Mitchel (School: Lake Crystal Wellcome Memorial)

a. I was curious as to why most conventional power Wind Turbines have three blades and if it is really the most efficient. b. Step 1: I first made the wind turbine Step 2: I add blades and test each of them on a fan setting Step 3: repeat step 2 with fan speed 2 and 3 Step 4: record data c. When the fan speed was at its highest the wind turbine with 3 blades did the best when the fan speed was at its slowest the one with 4 blades did the best. d. the one with 3 blades did the best overall this was because of gravity and it being able to harness lots of wind while being light.

Awards Won: