RON, MON, AKI. WHAT?

It may sound like a different language, but RON, MON and AKI are acronyms you should know!

These all have to do with the number you see at the gas pump, known as the octane rating. Octane is the measure of a fuel's ability to resist "knocking" or "pinging" during combustion, caused by fuel igniting prematurely within engines[1]. Let's walk through what this all means and why you should care.

RON **Research Octane Number**	Engine knock resistance during low-load operations. Used in the majority of countries, outside U.S. and Canada, as the publicly posted octane rating.
MON **Motor Octane Number**	Engine knock resistance during high-load operations.
AKI or (RON + MON)/2 **Anti-Knock Index**	The average of RON + MON. The publicly posted octane rating primarily in the U.S. and Canada

In the U.S., the average of RON plus MON, also known as AKI, equals the minimum octane rating for unleaded motor fuel, or the number you see at the pump! Often, you'll see the octane number of 87 (regular), 89 (mid-grade) or 91-93 (premium) when you fill-up.

So, why should you care about the octane number at the pump? NCGA, in partnership with our state corn organizations, is working to implement a national minimum octane standard of 98 RON (equivalent to approximately a 93-94 AKI). Why push for a higher minimum octane standard?

A higher minimum octane standard would grow the overall market for octane additives. Ethanol demand would grow substantially as a result. Ethanol's competitive advantage in octane value, price, renewable low carbon attributes and ability to deliver improved health benefits strongly position it to capture increased market share. A high-octane, low-carbon fuel utilizing mid-level ethanol blends would generate new corn grind of at least 1.8 billion bushels annually.

Automotive manufacturers are asking for affordable higher-octane fuels in order to achieve increased efficiency gains in future spark-ignition engines while limiting the financial impact to consumers at the pump. A high-octane, low-carbon fuel blended from corn ethanol is the only commercially viable option that can meet this objective.

1 https://www.fueleconomy.gov/feg/octane.shtml

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Learn more about the benefits of high-octane low-carbon fuel at ncga.com/octane