

poster location P-03 : NIRIS = Fuel Quality Sensor

**Reducing fuel consumption on the field,
by continuously measuring fuel quality
on electronically fuel injected engines**



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- ❖ Sensor performs continuous Near Infra Red spectrometry of the fuel , resulting in 20 parameters specifying fuel quality, so called HCP's.
- ❖ Like each person has his own finger prints, each fuel has its own set of HCP's.
- ❖ By comparison to data base , the sensor recognizes fuel and related properties.
- ❖ By transmitting sensor output to the ECU, engine can be fine tuned continuously.

HCP

«Hydro Carbon Profiler»



FUEL quality

- Cetane index
- Density
- Viscosity
- Biodiesel content
- Polycyclic Aromatic content
- etc....

ECU → Engine Control Unit:

- Fuel injection timing.
- Super-charged air pressure (VTG)
- Valve opening/closing timing.
- etc...

