

Sunday, June 1, 1980

BULLETIN #6 - "Advice for Farmers from Washington State University--
Tractors and Water Pumps"

I. TRACTORS NEED SPECIAL CARE NOW

Most farm tractors have a three-part air filtering system designed for operating under heavy dust conditions, according to Gary Hyde, Washington State University agricultural engineer. Do not replace filters until the air filter indicator comes on or there is a noticeable loss of power.

Paper filters are more effective than oil bath filters, according to Hyde. Paper filters remove 99.9 percent of the harmful particles, while oil bath filters remove 98 to 99 percent, Hyde says. This means that oil bath filters allow 10 to 20 times more dirt to enter an engine.

According to both filter and tractor manufacturers, filters remove particles that are 20 microns and larger. Tractors are designed with an oil film of 25 microns between moving engine parts. This means that the small particles which enter the engine will not rub on metal surfaces, Hyde says.

Hyde recommends servicing tractors according to manufacturers specifications. However, make sure the air filtering system is properly installed and everything is tight. Air leaks can allow large particles to enter the engine and cause damage.

You might want to increase the height of the air intake source, Hyde says. However, be sure the extension is tight and not so high it will hit wires or other obstructions.

Hyde recommends lubricating ball joints and suspension more frequently than normal. Use enough grease to force the grit out of joints. When performing maintenance that requires removing engine