

## New Holland Agriculture presents its high-tech vision for the sustainable future of farming at the Obihiro International Agricultural Machinery Show

- *Methane-powered Concept Tractor has environmental and economic benefits*
- *NH<sup>Drive</sup> autonomous tractor concept*
- *SmartTrax™ alternative to wheels offered on T8 Series tractors*

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PRESS RELEASE

New Holland Agriculture has provided a glimpse of the future by showing its methane-powered concept tractor and NH<sup>Drive</sup> autonomous tractor technology for the first time at the International Agricultural Machinery Show in Obihiro, Japan. New Holland also chose the show, which runs from July 12<sup>th</sup> to 16<sup>th</sup>, to unveil its all-new SmartTrax system, a state-of-the-art alternative to conventional wheels.

New Holland's methane-powered concept tractor reduces overall emissions by 80 per cent when compared to a conventional diesel-powered tractor, as well as delivering a reduction in drive-by noise levels of 50%, and cutting operating costs by 30%. These significant environmental and economic advantages are coupled with identical performance to a standard diesel equivalent.

New Holland also demonstrated the possibilities of supervised automation by fitting a T7 Series tractor with NH<sup>Drive</sup> autonomous tractor technology. Exploiting the full capabilities of advanced PLM (Precision Land Management) technology for precision farming, this gives the tractor the ability to both work in the field autonomously and to reach the field autonomously via private on-farm tracks. The unmanned tractor can be monitored and controlled by a desktop computer or portable tablet interface.

New Holland's SmartTrax system is being offered on the top three models in the T8 tractor range. SmartTrax provides the manoeuvrability and flexibility of a wheeled tractor with even weight distribution, reduced ground pressure and soil compaction, and improved traction on wet or soft ground.

### **Methane-powered concept tractor**

The methane-powered concept tractor is centre-stage at the New Holland stand in Obihiro. Its reimagined design previews a future in which farms are entirely energy-independent, not only producing food but also biomass to generate the energy needed to run their tractors and other

machinery. The Concept Tractor shows how New Holland's advanced technology puts a self-sufficient future within reach today.

Mark Brinn, CNH Industrial Managing Director for South East Asia, Pakistan & Japan, commented: "New Holland's methane-powered concept tractor demonstrates how technical innovation can create more efficient and more environmentally-friendly agricultural practices for a sustainable future. What's more, this tractor achieves the high levels of performance and durability that New Holland's diesel tractors are famous for, but with even lower running costs. By running on energy produced from the land and waste products, the methane-powered tractor completes the virtuous cycle in New Holland's Energy Independent Farm™ system."

#### **Pushing the boundaries of innovation to pioneer alternative fuels solutions**

New Holland has been pushing the boundaries of innovation in clean energy solutions for more than a decade through its Clean Energy Leader strategy. It was the first manufacturer to offer 100% compatibility with Biodiesel back in 2006. In 2009 New Holland developed the world's first hydrogen tractor concept, NH<sup>2</sup>™, proving the feasibility of this zero-emission technology for the future. This was a key element of the brand's Energy Independent Farm™ concept, launched at the same time.

New Holland continued to explore alternative fuels that would deliver reduced emissions and lower running costs. In 2012, the brand created its first propane-fuelled tractor prototype and is now developing the T6 Propane Power tractor in partnership with the Propane Education & Research Council (PERC).

In 2013, New Holland presented its first T6 Methane Power tractor prototype, which has been developed further and tested with customers.

#### **The new methane-powered concept tractor: the performance and durability of its diesel equivalent, with running cost savings of up to 30%**

The new methane-powered Concept Tractor builds on the foundations of the previous T6 Methane Power prototypes to achieve a significant technological advance. It features a powertrain that uses a groundbreaking efficient combustion technology specifically developed for agriculture applications by FPT Industrial, a brand of CNH Industrial, that has pioneered natural gas traction for more than 20 years. The 6-cylinder NEF methane engine delivers 180 hp and 740 Nm: the same power and torque as its standard diesel equivalent. It has the same durability and service intervals, and generates up to 30% running cost savings. The innovative tank design,

using a composite layered tubular structure, enables a full day's autonomy in line with an equivalent diesel model.

The powertrain of the methane powered-concept tractor has the added benefit of quiet operation, with engine noise level reduced by up to 3 dBA. This translates to a reduction of around 50% in drive-by-noise, which makes it ideal for municipality, yard and transport operations.

In real field conditions, the methane-powered concept tractor produces at least 10% lower CO<sub>2</sub> emissions and reduces overall emissions by 80% compared to a standard diesel tractor. Its environmental performance further improves when fuelled by biomethane produced from crop residues and waste from farm-grown energy crops, which results in virtually zero CO<sub>2</sub> emissions.

#### **A vital link in the Energy Independent Farm's virtuous cycle**

The methane-powered concept tractor forms a vital link in the virtuous cycle that delivers CO<sub>2</sub> neutral production, where the Energy Independent Farm™ produces the energy it needs to power its operations, heat farm buildings, and run its equipment. Biomethane as a sustainable fuel is particularly well-suited to farms, as they have the raw materials and the space to house a biodigester to produce the gas.

The biodigester is fed with specifically grown energy crops, animal waste, food waste or crop residues. It can use waste collected from food factories, supermarkets and restaurants in addition to the materials gathered at the farm. The biogas produced in the biodigester is transferred to a refining station where it is transformed into fuel-grade methane to power the farm's vehicles and machinery. The methane can also be used to fuel a generator to produce electricity that can be used on the farm, with any extra fed into the electricity grid to power local communities. The by-products of biodigestion can be used as natural fertilisers on the farm's fields.

#### **The new concept reimagines tractor design**

CNH Industrial's design team reimagined tractor styling, taking inspiration from automotive design, to create a fully integrated body look while accentuating iconic New Holland style elements such as the aggressive hood air intake gills and lights.

They also created strong brand designs such as the unique leaf-shaped seat and signature lights. The wrap-around bodywork is a perfect illustration of a fully integrated design approach with the hood, front and rear fenders, and the fuel tank creating a flowing, stylish look. Wrap-around glazing provides 360-degree visibility, with a 20% increase in the glazed area compared to a

standard tractor. The floating glass domed roof with fully integrated Precision Land Management receiver provides a completely panoramic design – an agricultural first – and offers an unobstructed view of the loader at all times, facilitating operations from loading digestate to feeding cattle.

The interior of the cab offers a clutter-free operating environment, with all essential controls on the integrated armrest, and with additional parameters controlled through the interactive headliner display. The fixed-hub steering wheel-mounted display cluster moves with the steering wheel when it is raised or lowered to accommodate the size of the operator, ensuring optimum visibility on the display information in all positions.

The New Holland methane-powered Concept Tractor closes the virtuous cycle of the Energy Independent Farm™. It combines visionary design concepts with advanced technologies, extended connectivity and reliable powertrain technology that are already available, fuelling innovation to offer a glimpse into a sustainable future of efficient and productive farming.

Link to the video on YouTube: <https://goo.gl/zd3iWL>

**Established presence in the market and longtime partnership with New Holland HFT Japan**

New Holland is the historical market leader in high-horsepower tractors (above 100 hp) and balers and has been present in Japan since the first Ford tractors arrived in the country in 1952. Since 1970, New Holland has operated in Japan through a commercial joint venture, New Holland HFT Japan, Inc. Today this joint venture offers New Holland tractors, combine harvesters and hay and forage equipment, and supports customers with a network of 54 field stores.

Masaaki Shibaomoto, CEO of New Holland HFT Japan, Inc. commented: "We are committed to providing our customers with agricultural equipment that can further increase their success together with after-sales support that exceeds expectations. We believe that the New Holland machines such as the Methane Power concept tractor exhibited here are a demonstration of this commitment and the pride we take in working with customers. "

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*New Holland Agriculture's reputation is built on the success of our customers, cash crop producers, livestock farmers, contractors, vineyards, or groundscape professionals. They can count on the widest offering of innovative products and services: a full line of equipment, from tractors to harvesting, material handling equipment, complemented by tailored financial services from a specialist in agriculture. A highly professional global dealer network and New Holland's commitment to excellence guarantees the ultimate customer experience for every customer. For more information on New Holland visit [www.newholland.com](http://www.newholland.com)*

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