





Sustainable Efficient Technology

# Your sustainable farming partner

Since 2006, New Holland is established as the Clean Energy Leader® for its active promotion and development of renewable fuels, emissions reduction systems and sustainable agricultural technology. New Holland offers the farmers of today and tomorrow the widest choice of accessible solutions that improve efficiency and productivity, whilst respecting the environment. Rooted in the belief that farmers can use technology to help them reduce their dependence on fossil fuels, the New Holland Clean Energy Leader® strategy is based on four key pillars Growing Energy, Efficient Productivity, Sustainable Farming and being a Committed Company.

#### **GROWING ENERGY**

ALTERNATIVE FUELS OF THE FUTURE ETHANOL BIOMASS ENERGY INDEPENDENT FARM NEW HOLLAND T6.180 METHANE POWER

# **EFFICIENT PRODUCTIVITY**

TIER 4 TECHNOLOGY PRECISION LAND MANAGEMENT (PLM) PLM CONNECT MECHANIZATION INNOVATIONS

#### SUSTAINABLE FARMING

CARBON FOOTPRINTING ECOBRAUD CONSERVATION AGRICULTURE

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# **01** GROWING ENERGY

# Fields of energy

We are all familiar with growing oilseed rape and sunflowers for biodiesel, or in even simpler terms, for energy. But how about transforming sugar beet and sugarcane into bioethanol, or unlocking the energy potential inside wheat or maize to power your farm? Short rotation coppice and grasses such as miscanthus are also packed full of energy waiting to be released. How about rejuvenating sugarcane stover or even old straw bales to produce energy? New Holland is also at the forefront of research to create a methane tractor, as an intermediate step until 100% hydrogen powered machines are available. Moreover, methane powered tractors produce up to 80% lower emissions than their conventional diesel counterparts. What's more, methane can be produced on the farm, derived from biomass production. New Holland's advanced and efficient products will support you with production and handling in this virtuous, carbon neutral energy production cycle.

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#### ALTERNATIVE FUELS OF THE FUTURE

# **POWERING THE BIODIESEL REVOLUTION**

New Holland was the first manufacturer to offer 100% biodiesel compatibility back in 2006. Its status as an efficient, reliable and productive alternative to standard diesel was confirmed by the 500-hour TM Extreme Endurance Trial, when a TM tractor worked non-stop for 500 hours whilst running on pure, 100% biodiesel. Today, New Holland has the Industry's largest range of 100% biodiesel compatible products. Moreover, all Tier 4B products, which use ECOBlue™ HI-eSCR technology, can run on 5% B5 biodiesel as long as the biodiesel blend fully complies with EN14214:2009 regulations.



New Holland tractors run on 100% biodiesel transport visitors around the Eden Project's reclaimed site in the UK.

#### FUTURE PROPANE DEVELOPMENT

New Holland has always been at the forefront of alternative fuels development. It was the first to offer compatibility with 100% biodiesel and has also extensively tested a prototype methane powered tractor. Now the use of propane is under review. Following a similar technological solution to that employed with methane, propane is denser, requiring fewer tanks and no after-treatment system. What's more it is easy to store and use, and generates significantly lower emissions than traditional diesel technology.

#### **ETHANOL BIOETHANOL: FUELLING THE FUTURE**

Have you ever considered that your crops could be more than food stuffs for animals and humans alike? Have you ever thought that they could be used to power not just your farm, but your local community and even public transport? Well, if you answered no, then it is time we introduced you to bioethanol production. Quite simply, the crops that you grow in your fields can be transformed through a straight forward process to create energy. Ingenious, isn't it.

#### **GROWING ENERGY, GROWING FARMS,**

Why bioethanol? It's quite simple really, it burns cleaner than petroleum based products and it also reduces dependence on oil. However, it's important that bioethanol is included within an overarching sustainable agricultural plan to ensure that enough of the essential food products for the world as a whole, and your livestock remain.





#### GROW THE ENERGY THAT SUITS YOU

New Holland is the premier equipment partner of Growth Energy and its 75 supported ethanol plants. Furthermore, the prestigious NASCAR series cars in the United States, which run on a blend of E15, 15% ethanol, will benefit from this alliance. A whole range of crops can be transformed from simple plants into essential energy. Sugar from sugarcane, sugar beet, cereal crops such as wheat, maize stover and miscanthus can all be converted into cellular energy and used to produce ethanol.



New Holland is actively involved in the promotion of bioethanol through its partnership with Growth Energy in North America. Customer are invited to attend conferences to find out more information on the benefits that bioethanol production could bring to their farm. Furthermore, New Holland offers a complete range of products to support bioethanol production.

#### YOUR BIOETHANOL PARTNER

Whether you're growing, harvesting or managing your bioethanol crops, New Holland has the right product for you. From planters through to crop protection equipment such as sprayers, and from tractors for a range of tasks to the right combine or forage harvester, you will receive professional support every step of the way.

#### SECOND GENERATION ETHANOL PRODUCTION

Bioethanol production can be significantly increased, by up to 30 or 40% for the same cultivated area, when compared to standard production techniques, by using an enzymatic process to release ethanol from bagasse, the by product of mill production or from the sugar cane stover which remains in the field following harvesting. This form of bioethanol production is linked to cellulose, hemicellulose or lignin as opposed to the traditional sucrose-focused methods.

#### **GRANBIO: ENERGY FROM STRAW**

In North Eastern Brazil, sugar cane stover is collected from the fields, and using second generation cellulosic bioethanol production techniques, is transformed into useful ethanol. This process uses enzymes to break down the cellulosic fibre into simple sugar molecules which subsequently fermented and turned into ethanol and produces 30-40% more ethanol than traditional first generation techniques.

# BIOMASS BIOMASS: THE ULTIMATE RENEWABLE ENERGY SOURCE

The never-ending cycle of sowing, growing and harvesting is as age old as farming itself, and means that agricultural biomass is the true embodiment of the term 'renewable energy'. Quite simply, it will exist as long as farmers continue to cultivate the land. No need to worry about dwindling resources or finite supplies. Biomass energy will be on tap today, tomorrow and for all future generations.



220	10,000m <sup>3</sup>	2kWh	4.4GW
hectares	x of biogas (twice as productive	of energy	total
of maize silage	as grass / cereals)	for every m <sup>3</sup>	energy
at 50 tonnes/hectare	for every hectare of maize	of biogas	production*

#### **BIOMASS: FITS FARMERS LIKE A GLOVE**

What makes biomass and agriculture the perfect match?

**One**: farmers have the land to grow suitable crops.

**Two**: farmers have the machines to harvest and process these crops.

**Three**: farmers can provide for their own energy needs, and sell surplus energy back to the national grid.

Growing energy. As easy as 1-2-3.

#### **CARBON NEUTRAL ENERGY**

It's all very well and good producing renewable energy, but if by doing so you have a carbon footprint the size of an elephant you've simply shifted the problem from use to production. Agricultural biomass is a carbon neutral virtuous cycle. The carbon emitted during the utilisation of these crops, for example in combustion, is absorbed by the crops the following season during growth. The result? Energy one. Carbon neutral.

#### FARMING TECHNOLOGY FOR BIOMASS

Biomass is at the heart of New Holland's product development cycle and you can choose between a range of machines to help you harness the energy you have grown.



#### **BIGBALER: BALES OF ENERGY**

Turn sometimes unwanted harvesting by-products into bales of energy with the BigBaler range. Select the TwinCutter™ prechopper for a super fine chop. Uniformly dense bales with an optimised combustion profile are produced courtesy of SmartFill™ technology.



#### FR FORAGE HARVESTER: HARVESTING ENERGY

Choose the specialist biomass drum for guaranteed fine chopping for more efficient digestion. A complete range of headers for biomass applications include the 130FB coppice header with integrated saw blades that can slice through coppice stems of up to 150mm.

# ENERGY INDEPENDENT FARM TRUE ENERGY INDEPENDENCE WITH ZERO EMISSIONS

New Holland Agriculture is already imagining the future of farming, where farmers will be able to provide for all of their own energy requirements. This concept is based on the principal that they can recycle and transform, what are today considered to be mere by-products, into useful energy, alongside the integrated use of renewable energy, such as that generated from solar, wind and biomass sources. New Holland is actively engaged in this challenge, and has continually developed innovative solutions which will enable tomorrow's farmers to capitalise on these advantages.

#### THE PATH TO ENERGY INDEPENDENCE



>> 2009

The world's first Energy Independent Farm concept featuring the NH<sup>2TM</sup> zero emission tractors was unveiled at SIMA, France and promptly won a Gold Medal for innovation.



#### >> 2010

Theory became reality, and the La Bellotta farm, just outside Turin, Italy, was chosen as the pilot Energy Independent Farm.



# >> 2011

The second generation, NH<sup>2™</sup> tractor took centre stage at Agritechnica, Germany.

#### **ENJOY AN ENERGY INDEPENDENT FUTURE**



True energy independence. Think about a world in which you did not have to worry about fluctuating energy prices and the negative impact they have on farm incomes. The Energy Independent Farm means you can cater for your own energy needs; a self-sufficient world that puts you in control.



Renewable energy. Imagine waking up every day and knowing you had energy on tap, not just for today but for tomorrow, and all of your children's tomorrows. The Energy Independent Farm uses renewable sources of energy that never run out including wind, solar, biomass and biogas. Low environmental impact and a never ending supply.



New Holland Agriculture has been working to establish a prototype Energy Independent Farm. Nestled in the Piedmont countryside, just outside of Turin, Italy, the La Bellotta farm fulfills this brief. The farm features a biomass production facility which is, used to generate electricity. The Methane Power Tractor is used to cultivate the fields and solar panels further assist La Bellotta along its path to energy independence.

Working methane prototype tractor launched.

>> 2013



#### >> 2015

Second generation fully operational T6 Methane Power undertakes an extensive field test programme.

#### >> Future

Keep your eyes peeled for the first commercially available Methane Power tractors.

# NEW HOLLAND T6.180 THE METHANE POWER T6.180

The Methane Power T6.180 is a very special tractor indeed. It can be powered by the crops you grow in your fields or from waste that you would otherwise have thrown away. By producing biomethane in biodigesters from ingredients as diverse as maize silage, triticale or even slurry, you can enjoy fuel self-sufficiency. What's more, methane powered tractors produce significantly less emissions than their diesel fuelled counterparts.





#### **NON-STOP FARMING**

The T6.180 Methane Power has nine tanks which can contain 300 litres of methane, which will provide you with upwards of half a day of autonomy, depending on the task in hand.



#### A POWERFUL NEF ENGINE

At the heart of the Methane Power tractor is a sixcylinder Nef engine, developed by FPT Industrial. This powerplant has been specifically developed with agricultural operations in mind, and delivers plenty of low down torque for great in field performance.



#### EASY TO REFUEL

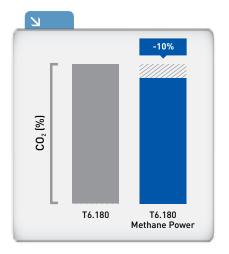
Refuelling your T6.180 Methane Power is as simple and as easy as filling a standard tractor. The connection is exactly the same as that found on gas powered cars. You simply need to the nozzle and away you go.

#### LOWER EMISSIONS, LOWER OPERATING COSTS

The Methane Power tractor produces significantly less polluting emissions than its diesel counterpart, 80% less in fact, together with a 10% reduction in  $CO_2$  emissions. The Methane Power also delivers some pretty impressive operating cost savings, and could slice between 25-40% off of fuel bills.

#### PARTNERSHIP WITH ITAIPU, THE WORLD'S LARGEST GENERATOR OF CLEAN ENERGY

New Holland has entered into an agreement with Itaipu which will see the Methane Power Tractor used to stimulate biomethane production in Brazil by enhancing and disseminating technologies which use it. In Brazil, agriculture waste, which is transformed into biogas, is used both to fuel vehicles as well as to produce electrical and thermal energy. The agreement foresees the development of joint activities, programs and projects of common interest which will contribute to the goal of developing the biomethane production chain from treatment of urban and rural organic waste through to the transportation, storage and consumption of this fuel which will ultimately result in both environmental and social benefits.



**02** EFFICIENT PRODUCTIVITY

# More productive farming. More efficient farming.

Want to consign the age-old trade-off between environmentally friendly farming and productive agriculture to the history books? Then choose New Holland. If you are looking for tractors and harvesting products that are more productive whilst consuming less fuel, choose New Holland. If you want to reap the benefits of precision guidance which keeps your environmental credentials and productivity on track, choose New Holland. If you want productivity boosting features such as SuperSteer<sup>™</sup> front axles, Auto Command<sup>™</sup> continuously variable transmissions or IntelliCruise<sup>™</sup> technology, choose New Holland. Or if you simply want to tread a little more lightly on the land where you farm, choose New Holland.



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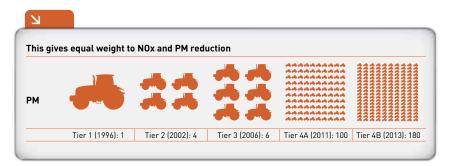


#### **TIER 4 TECHNOLOGY**

# MORE PRODUCTIVE FARMS. MORE PRODUCTIVE FARMERS.

New Holland is committed to providing easily accessible agricultural solutions which make farming more productive and efficient whilst respecting the environment. That has always been our mantra, but what does it mean for you? Put simply it means increasing your farm's productivity whilst reducing the emissions you create to achieve it. But it also means going a step further: increasing agricultural mechanisation, freeing people from the grinding drudgery of farm labour that still characterises many farms today, and skilling up the workforce whilst providing them with support to unlock the full potential of modern agricultural machinery.





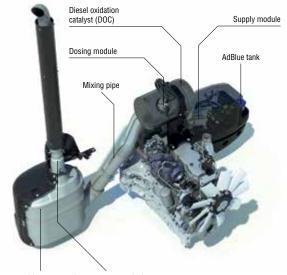
#### TIER 4B: 180 TIMES BETTER OFF THAN OVER A DECADE AGO

New Holland has reduced emissions 180 times over the last decade to improve the lives of farmers and their families. In real terms, this means you can run your Tier 4B compliant machine for over 180 days and produce the same amount of emissions as a Tier 1 machine would have in just one day.



## TIER 4 TECHNOLOGY A CLEAR PRODUCTIVITY AND EFFICIENCY ROADMAP

New Holland was at the forefront of the introduction of Tier 4 emissions technology. The result: today, you benefit from the Industry's widest range of Tier 4B compliant products: 34 tractors and 18 harvesting products. The ECOBlue™ HI-eSCR technology is protected by eight patents, which means that you benefit from the most efficient Tier 4B system around. New Holland always keeps its eyes firmly fixed on the future of emissions. Together with our engine technology partner, FPT Industrial, we are already working on solutions which will enable us to meet future, ever more stringent emissions regulations.



HI-eSCR canister Clean up catalyst (CUC)



	Tier 3	Tier 4B HI-eSCR	
Nef Engine	(T7070)	(T7.270)	Improvement
Max Power	185kW / 252hp	198kW / 270hp	+ 7%
Rated power	167kW / 225hp	177kW / 240hp	+ 6,6%
Torque	1025Nm	1160Nm	+ 13%
orque Backup	30%	40%	+ 33%
EPM Band	19kW / 27hp	21kW / 30hp	+ 11%

#### **REFRESHING BREATHABILITY**

ECOBlue™ HI-eSCR engines used on high horsepower products breathe clean fresh air instead of hot, dirty recirculated 'smog' to ensure optimal combustion conditions. The result, you will experience the same impressive power and performance that you've come to expect at Tier 4A. Improved rated powers for some models, further enhance operational flexibility. Already impressive transient response has been maintained, which means your tractor continues to react quickly when placed under load.

#### COMMON RAIL. COMMON SENSE.

As the old adage says: good things come in small packages. That's why lower powered Tier 4A products enjoy all of the benefits of Common Rail technology, namely precision fueling and enhanced response. When combined with advanced cooled exhaust gas recirculation technology, to provide you with the most efficient and easy to use package, you'll reduce harmful emissions all within the same compact dimensions as before.

#### FPT INDUSTRIAL. THE PERFECT PARTNER.

FPT Industrial is New Holland's sister company, and engine development specialist. With over 650,000 SCR engines produced to date, their industry-leading SCR system has been extensively developed and tested in the agricultural, construction and haulage sectors. The result: optimised performance and ultimate reliability.







# PRECISION LAND MANAGEMENT (PLM) FARM WITH PRECISION WITH NEW HOLLAND

New Holland offers a full range of guidance solutions that can be tailored to suit your individual needs. With a full range of correction signals, New Holland's modular solution can be used on any machine. Intuitive, user-friendly interfaces mean you can use guidance with confidence. PLM® software analyses and plans your in-field tasks so you can enjoy the benefits of more efficient farming. You'll be reducing inputs, saving you money, as well as benefiting the environment. Reduced inputs mean reduced energy-intensive manufacturing and also less wastage and run off. More efficient coverage of your land boosts your profits and gives Mother Nature a helping hand.





#### NHDRIVE CONCEPT AUTONOMOUS TRACTOR

Based on a standard T8 tractor, the New Holland NHDrive concept autonomous tractor will enable fully autonomous farming, and is monitored and controlled via a desktop computer or via a portable tablet interface. Able to work 24 hours a day, 7 days a week, the NHDrive tractor helps to overcome a lack of skilled labour and can make full use of favourable working windows and cab be integrated into existing machinery fleets. As it maintains its cab, the NHDrive concept autonomous tractor can be driven by an operator for applications when complete autonomy is not yet possible.

#### TARGETED APPLICATION. UNIFORM YIELDS.

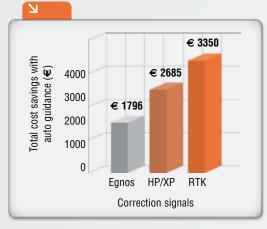
All combine and forage harvesters can offer advanced yield monitoring techniques. By precision analysing yields, you can pinpoint underperforming areas and focus inputs to enhance your productivity as well as keeping a tight control on them. Your pocket will say thank you. The environment will say thank you.

#### PRECISE APPLICATION

When spraying, fertilizing or seeding, use advanced IntelliRate™ Control and Field IQ™ technology to precision place inputs to ensure maximum returns. Uniform planting and crop protection activities guarantee the highest yields, but also help to prevent potentially harmful and wasteful surpluses from damaging your agri-businesses's environmental profile.







#### **CONTROLLING TRAFFIC IN YOUR FIELDS**

Use pre-set guidance paths to ensure the most efficient coverage of every field with the minimum number of passes. When combine harvesting you save fuel and reduce  $CO_2$  emissions by guaranteeing your header is 100% full 100% of the time. When spraying you prevent wasteful over spraying, saving on inputs and also preventing potentially harmful run off. When fertilizing you reduce in-field runs and again save on inputs. Help yourself. Help the environment.

# PLM CONNECT TELEMATICS: MANAGE YOUR MACHINE FROM THE COMFORT OF YOUR OFFICE

PLM<sup>®</sup> Connect enables you to connect to your T7 from the comfort of your office through the utilization of the mobile network. You can stay in touch with your machines at all times, and you can even send and receive real-time information that saves time and enhances productivity. The entry-level PLM<sup>®</sup> Connect Essential package offers the most frequently used features or upgrade to the PLM<sup>®</sup> Connect Professional package for full machine monitoring and control. In short, PLM<sup>®</sup> Connect will help you to reduce your fuel bills and improve fleet management and security in one simple package.











# PROFESSIONAL CUSTOMER SUPPORT: PLM PORTAL

The PLM portal has been created to support New Holland customers who have purchased Precision Farming and Auto Guidance products. Available to all New Holland customers, visit **www.newhollandplm.com** today. Once you have signed in, you have unlimited access to the most advanced information on all New Holland Precision Farming and Auto Guidance systems. There is also a section dedicated to training videos and customer support information.

### MECHANIZATION MECHANIZING WORLD AGRICULTURE

New Holland's history is one of continuous innovation, pioneering firsts and education to make agriculture easier and more productive for the world's farmers, wherever and whatever they farm. Abe Zimmerman's very first corn grinder removed the drudgery from this laborious task. Henry Ford and Giovanni Agnelli are the true founding fathers of global agricultural mechanization, and Leon Claeys mechanized the harvesting process. Today, mechanised harvesting can reduce waste by up 15 times when compared to traditional, manual harvesting techniques. New Holland has been responsible for freeing millions of agricultural labourers from the back braking toil of tilling, sowing, cultivating and reaping by hand, and in the process contributed to massive gains in terms of productivity, efficiency and skilling up the workforce.



#### MECHANIZED HARVESTING BOOSTS PRODUCTIVITY

New Holland is dedicated to increasingly mechanizing the world's harvest with significant benefits. Losses can be reduced from 15%, typical of manual harvesting, to a mere 3% when using state-of-theart machines. In real terms, that mean more valuable grain is harvested to feed the world's ever growing population.



#### **GROWING AGRICULTURAL KNOWLEDGE**

In order for local people to unlock the full potential of their New Holland machines they need on-the ground training. New Holland has undertaken an extensive grass-roots training programme, which covers both operator and service training in emerging countries to provide local people with the skills they require to operate and maintain their equipment in tip top condition.



# **INNOVATIONS** NEW PRODUCTIVITY AND EFFICIENCY SOURCES



#### HARVESTING INNOVATIONS

New Holland has taken harvesting efficiency to a whole new level. The PowerCruise™ technology, available on the FR range of forage harvesters, optimises engine and ground speed in relation to crop throughput, and can reduce fuel bills by up to 15%. SmartTrax™ rubber tracks, available on the CR and CX7 & CX8 combine ranges, reduce soil compaction for enhanced yields.



#### TRACTOR INNOVATIONS

New Holland has developed a range of agricultural solutions to enhance your productivity. Super tight turning from SuperSteer™ front axles can improve productivity by up to 10%. Renowned New Holland innovations such as Auto Command<sup>™</sup> continuously variable transmissions and IntelliCruise™ technology all enhance all round productivity.



#### **GRAPE HARVESTER** AND SPECIALITY TRACTOR INNOVATIONS

New Holland has developed Blue Cab 4 technology which further enhances operator safety when conducting spraying operations on both grape harvesters and speciality tractors. The category four closed loop cab pressurisation system is automatically activated when a sprayer is attached and engaged. A patented auto air cleaning valve purges the air before cab pressurisation and filtration begins for ultimate safety and a dedicated management system monitors maintenance intervals and usage.

# **03** SUSTAINABLE FARMING

# Sustainable farming. Enhanced profits.

The world's rapidly expanding population means that farmers are under intense pressure to produce more to feed an ever growing number of hungry mouths. However, if you want to continue to keep productivity rates sky-high then it is important that the environment is kept in top condition to support you. By reducing the impact of farming on the agricultural environment, you ensure that it stays healthier for longer, and your children and their children will be able to farm the same land just as efficiently. Want more? Use advanced tools to calculate the impact your farm has and find ways to reduce it.



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# CARBON FOOTPRINTING

# HOW MUCH CARBON DO YOU PRODUCE? FIND OUT WITH NEW HOLLAND.

#### CALCULATE AND REDUCE YOUR FARM'S CARBON FOOTPRINT

Consumers are increasingly demanding farm produce with a reduced carbon footprint. In an effort to support farmers in facing this new challenge, New Holland has developed a carbon foot printing method.

Visit **www.carbonid.newholland.com** to discover the exact carbon emissions of your fleet and see just how much you could reduce your carbon footprint by replacing some of your equipment with ECOBlue<sup>™</sup> machines.

#### WHY REDUCE CARBON EMISSIONS?

As everyone knows, carbon emissions are one of the key contributors to the greenhouse effect and global warming. With the potential to wreak havoc on established weather patterns, which are a prerequisite for productive farming, it is in all of our interests to reduce our carbon footprint to safeguard the climate for the future of our farms.





# SAVING FUEL MEANS A REDUCED CARBON FOOTPRINT

Emissions released from burning diesel are a significant contributor to farms' overall carbon footprints. ECOBlue™ SCR technology for Tier 4A compliance reduces NOx emissions and agribusinesses' fuel consumption by up to 10%, bringing about a substantial cut in their carbon emissions.



#### **ECOBRAUD**

#### **NEW HOLLAND AND BRAUD. YOUR SUSTAINABLE FARMING PARTNERS.**

Wine adds a touch of luxury to any occasion, whether it is gracing the finest tables or if it is simply a glass shared with friends. Just take a moment to think, by buying and producing wine with a reduced carbon footprint, you can enjoy one of the finer things in life whilst reducing the impact it has on the environment. ECOBraud is New Holland's Sustainable Viticulture programme and comprises the complete range of viticulture equipment, including Braud grape harvesters and speciality tractors. It is aimed at increasing productivity and profitability whilst reducing the environmental impact of viticulture. ECOBraud has three main pillars: Intelligent Management Systems, managing variable rate inputs and row tracing technology.



#### WELCOME TO INTELLIGENT HARVESTERS

The Intelligent Management System enables the harvester to control hydraulic flow and engine speed based on the actual load on the machine.

For example, at row ends, when manoeuvring, the shaker system is automatically switched off. This can reduce fuel consumption by as much as 31%, and reduces its carbon footprint significantly.



#### THE CLEAR PATH FOR SUCCESS

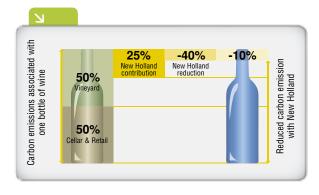
Row tracing technology uses guidance correction signals and a machine mounted antenna to ensure that each and every row is covered just once.

This consigns duplicated rows and wasted inputs to the history books, increasing harvesting productivity and efficiency as well as reducing the environmental impact of viticulture.



#### MANAGING VARIABLE RATE INPUTS

Fertilizer production is a massively energy-intense process and any reduction in the energy required to produce it will significantly reduce the environmental impact of farming by default. The speciality spreader kit uses Field IQ<sup>™</sup> technology to enable inch perfect fertiliser placement. The system reads pre-prepared yield maps, and only applies fertiliser where it is needed to reduce input costs whilst maximising yields.



#### ECOBRAUD REDUCES YOUR CARBON FOOTPRINT

Consumers are increasingly demanding farm produce with a reduced carbon footprint, and the ECOBraud strategy that encompasses the complete range of New Holland viticulture equipment, including Braud grape harvesters and speciality tractors will directly contribute to a 10% reduction in the overall carbon footprint of each and every bottle of wine produced. When fuel savings from IMS and fertiliser savings from spreader management are combined, a reduction in the carbon footprint of vineyards by up to 40% is achievable. This is composed of a 31% reduction thanks to fuel savings through IMS and spread management contributes a further 9% reduction, well ahead of the 2020 targets set by professional bodies, which mandate a 20% overall reduction.

## CONSERVATION AGRICULTURE WORKING WITH NATURE TO ENHANCE YOUR PROFITS

Conservation. Agriculture. These words have often been considered in direct opposition to each other. Thanks to state of the art farming techniques, however, they should be considered as perfect partners. By combining sustainable management of the soil, residue and inputs with advanced crop diversification techniques, the environmental impact of agriculture can be significantly reduced, whilst substantially enhancing your profitability and productivity. You no longer need to make a choice: from conservation or agriculture to conservation agriculture, New Holland has the tools to support you.



#### MINIMUM SOIL DISTURBANCE

Excessive cultivation can lead to irreparable soil damage, fracturing layers of organic matter and destroying natural soil structure. The no-till approach leaves soil virtually undisturbed after the growing season, enabling it to lock in nutrients and moisture to benefit next season's crops, all whilst combatting erosion. Moreover, water preservation substantially improves as the soil structure is maintained. Rain water is preserved within the soil as run off and evaporation losses are reduced. Controlled traffic also limits the amount of damaging compaction and ensures that tractors, combines and sprayers all toe the same line.





#### **NO-TILL BENEFITS**

No-till farming delivers numerous benefits including the preservation of forested land, the world's green lung, and in 2011 saved up to 36 billion trees!

Fuel savings of up to 66% are possible, as each section of field is covered only once, which also reduces soil compaction. Want more? How about impressive yields which are up to 72% higher when compared with traditional cultivation techniques.

#### PRECISION MANAGE INPUTS

A whole range of advanced farming technology is easy to access and available at your fingertips to precision manage inputs to optimise both their application and usage. Keep an eagle eye on just how much fertilizer or spray you apply thanks to IntelliRate<sup>™</sup> control. Prescription maps can be easily generated using advanced PLM<sup>®</sup> software, and monitor application in real time thanks to PLM<sup>®</sup> Connect telematics.

#### VARIETY IS THE SPICE OF LIFE

Efficient and varied crop rotation is the key to maintaining soil vitality. By planting a variety of different crops the soil is never stripped of essential nutrients. Crop rotation has numerous benefits including nitrogen fixing, easier pest management and it can even lead to a reduction in pesticide application. Precision seeding can be managed using the full range of planters and PLM<sup>®</sup> software that optimise application.

# **04** committed company

# At the forefront of sustainable farming.

The Clean Energy Leader<sup>®</sup> strategy influences every decision we take here at New Holland. It might be termed walking the talk or even leading by example, but what it really means is that we have put the Clean Energy Leader programme at the heart of our business, and it characterises what we do every day. From giving used parts a second lease of life, right through to reducing the environmental impact of our production, we are committed to safeguarding our planet to ensure that you can keep reaping the rewards of your hard work.



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## PLANT CERTIFICATION PRODUCED NEAR YOUR FARM, FOR YOUR FARM

New Holland's global footprint spans all five continents and keeps it in touch with almost every agricultural reality in the world. By concentrating production, where possible, close to the end user, transport of products is reduced, saving valuable fossil fuels and reducing the carbon footprint. Local suppliers are contracted, where possible, to reduce the part-kilometres that go into producing every machine. Finally, by using local suppliers and local factories that employ local people, New Holland is contributing to the local economy, not only through agriculture, but also through production.

#### CERTIFIED PRODUCTION PLANTS

# 20 plants

have achieved OHSAS 18001 health and safety certification, keeping employees safe and well at work.

# 16 plants

are ISO 50001 energy management compliant, which guarantees the continuous improvement in energy performance of its production processes.

# 20 plants

have been ISO 14001 environmental management certificated, which rewards their unceasing quest to reduce the environmental impact of production.

# 22 plants

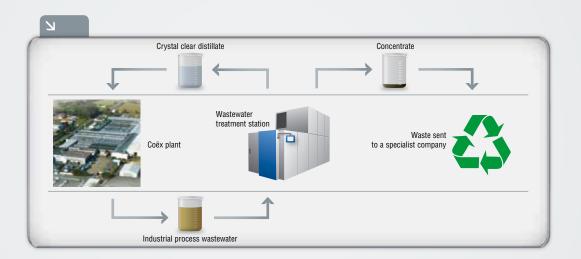
are ISO 9001 certified for quality management systems, to ensure the highest build quality.

## RECYCLING GIVING USED PARTS A SECOND LEASE OF LIFE

When you visit any farm, it does not take long to realise that farmers are very inventive people, and above all else they hate throwing things away. A whole host of equipment is given a second lease of life once its first lifespan has come to an end. Here at New Holland we've copied that principal from farmers and we remanufacture used components, restoring them to 'as new' quality, which means that they too, have a second lease of life, ready to go back into tractors, combines and forage harvesters.

#### INTELLIGENT WATER MANAGEMENT

New Holland is committed to conserving the most precious agricultural commodity: water. In Coex, France, water management techniques enable up to 90% water recovery. In Plock, Poland, a new water consumption monitoring system has reduced water consumption by 37% as well as reusing a high percentage of water within the production process. It even enables the plant to produce demineralised water following the painting cycle.





#### **INCREASING THE QUALITY LIFESPAN OF PARTS**

Remanufactured parts are frequently cheaper than buying brand new replacements. This makes it especially attractive for farmers to choose New Holland quality guaranteed parts when replacing high cost items such as engines and turbo chargers. Up to 80% of products can be recycled! When genuine parts are used machines run more efficiently and are more productive.



#### MORE EFFICIENT TRANSPORT

New Holland always selects the most efficient and lowest emissions transport solutions possible, to reduce the impact of its products. This includes selecting modern, fuel efficient trucks, alongside using intermodal solutions for both component shipping and final product distribution.



# **REDUCING THE IMPACT OF PRODUCTION**

All plants participate in the stringent World Class Manufacturing programme, which is focused on increasing the quality of production through ten key pillars. Energy reduction is a key requirement. To date, 13 plants have achieved the prestigious ISO 50001 certification in energy management. All New Holland plants are working towards the ambitious target of reducing energy consumption by 15% by 2014.

#### WORKING FOR A BETTER WORLD

New Holland is committed to improving not only the working environment through ergonomic analysis, but also the environment, and is actively involved in biodiversity projects in Brazil and Canada. It is also at the cutting edge of greenhouse gas emissions reporting.

# Dow Jones Sustainability Indices

In Collaboration with RobecoSAM 🐢

# SECTOR LEADER IN DOW JONES SUSTAINABILITY WORLD AND EUROPE INDEXES

For the sixth consecutive year, CNH Industrial has been named Sector Leader in the Dow Jones Sustainability Indices (DJSI) World and Europe. The pillars of the New Holland Clean Energy Leader<sup>®</sup> strategy played a significant role in obtaining this position.







# Discover the virtual Clean Energy Leader® world

The Clean Energy Leader website **www.thecleanenergyleader.com** is your open all hours, one stop shop to find out everything about sustainable agriculture. We know that your busy farming schedule means you need access to information when it's convenient, so the Clean Energy Leader website if perfect for you. It has become the place to go for information on sustainable agriculture. Browse through exciting and interactive sections dedicated to sustainable farming, watch expert videos and hear what farmers themselves have to say about sustainable farming. Keep up to date with the latest comments from social media and keep your finger on the pulse and find out what is trending now with the continuously updating tag cloud. Finding out what environmentally friendly means in real terms, and what it could mean to you is just one click away.













# The road to becoming the Clean Energy Leader

May 2006	New Holland is the first manufacturer to approve the use of 20% biodiesel in all products and the TM Extreme endurance trial proves the feasibility of 100% biodiesel usage.
April 2007	➢ New Holland is chosen as the official partner for Eden Project in Cornwall, UK, thanks to its eco-friendly image.
November 2007	$^{ m >}$ All products with New Holland engines are compatible with 100% biodiesel.
February 2009	<sup>™</sup> The world's first NH <sup>2™</sup> zero emissions, hydrogen powered tractor is unveiled within the Energy Independent Farm concept at SIMA, France, and wins a Gold Innovation Medal.
May 2010	$^{>}$ New Holland embarks on a strategic collaboration with CTC biomass in Brazil.
September 2010	<ul> <li>The La Bellotta farm outside of Turin, Italy, is chosen as the first pilot Energy Independent Farm.</li> <li>A clear roadmap for Tier 4B compliance, with SCR only for high horsepower tractors is announced.</li> </ul>
November 2011	ECOBraud and sustainable viticulture win a silver medal at Agritechnica, Germany. The second generation NH <sup>2TM</sup> fully functional hydrogen tractor is unveiled. The Carbon Calculator and carbon footprinting programme is launched.
January 2012	New Holland has the largest range Tier 4A compliant machines, with 34 tractors and 18 harvesting products.
September 2012	New Holland entered into strategic partnership with Growth Energy, to promote the production and use of ethanol in the United States of America.
November 2013	$^{>}$ New Holland's methane tractor working prototype is unveiled.
Future	Pushing the boundaries of sustainable farming to enhance agricultural productivity and efficiency across the globe!

AT YOUR OWN DEALER



www.newholland.com





The data indicated in this folder are approximate. The models described here can be subjected to modifications without any notice by the manufacturer. The drawings and photos may refer to equipment that is either optional or intended for other countries. Please apply to our Sales Network for any further information. Published by CNHI INTERNATIONAL SA. Brand Marketing and Communication. Bts Adv. - Printed in Italy - 03/17 - (Turin) - **AP7701N/INB**