

INTRODUCING NÀDAR



THE WORLD'S FIRST
CLIMATE POSITIVE SPIRITS

CREATED BY THE ARBIKIE HIGHLAND DISTILLERY



A NEW ERA OF ETHICAL CONSUMPTION HAS ARRIVED

OUR DISTILLERY OVERLOOKS LUNAN BAY ON SCOTLAND'S EAST COAST

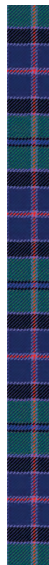
There is a seismic shift in the way consumers think about what they eat and drink.

It's called Ethical Consumption and it's about making the connections between a product, where that product originated and in what context it has been produced. It requires the consumer to think before they shop and consider how their choices affect other people, the wider community and the environment.

An ethically-informed consumer realises that when they buy something, they are buying more than the product.

**CONSUMERS ARE RECOGNISING THE
POWER THEY HAVE AS PURCHASERS OF
GOODS AND SERVICES IN INFLUENCING
BUSINESSES TO BE MUCH MORE
SUSTAINABLE, ETHICAL AND ACCOUNTABLE.**

OUR ETHOS IN FOUR WORDS



AUTHENTIC. Arbikie Distillery is a genuine field to bottle operation. From start to finish, all our spirits are made on-site and retain the evocative taste of our unique environment.

SUSTAINABLE. We grow our own crops. We use our own water. We grow our own juniper and botanicals. We are expanding our use of solar energy. Our primary waste products are recycled as cattle feed or used as a natural fertiliser where possible.

TRACEABLE. Every crop used to make our spirits can be traced to its field of origin. Our distillery conducts every stage of production possible on-site.

INNOVATIVE. Our mission is to set new standards in the industry with the aim to be the first climate positive distillery in the world.



WE GROW OUR OWN CROPS A STONE'S THROW FROM THE DISTILLERY

ALL OF THE TASTE

Arbikie's revolutionary climate positive gin and vodka is called Nàdar – Gaelic for 'nature'. Nàdar harnesses the power of nature and science to create these world-first spirits.



NÀDAR GIN

CROP	Pea (<i>Pisum sativum</i> L).
BOTANICALS	Lemongrass. Makrut lime.
ON THE PALATE	Smooth. Citrus. Refreshing.

Revolution is nothing without a really great taste, and Nàdar Gin does not disappoint. It is silky smooth and exciting. The refreshing zing of Nàdar Gin with lemongrass and makrut lime is complemented by the more classical gin botanicals.

NÀDAR VODKA

CROP	Pea (<i>Pisum sativum</i> L).
ON THE PALATE	Intense. Vibrant. Spicy.
ON THE NOSE	Floral. Crushed white pepper.

An antidote to tasteless vodkas!
Arbikie Distillery makes its own base spirit which retains many of the subtle flavours lost in most vodkas.

This field to bottle vodka is distinctive and delicious, with a vibrant and spicy taste alongside a contrasting floral nose.



NONE OF THE IMPACT

With a carbon footprint of -1.54 kg CO₂e per 700ml bottle, Nàdar is at the forefront of fighting climate change and biodiversity loss, the biggest challenges humankind has ever faced.

Eco-friendly tamper evident seals:
made from renewably sourced,
fully biodegradable and
home compostable wood pulp.

Stopper: a natural, unvarnished wood top
sourced from FSC certified forests, assembled
to a shank of bonded cork granules using
'waste' materials from natural cork stoppers.
Cork is a 100% renewable resource.

Bottle: glass, the only packaging
material that is 100% recyclable forever.

Label and neck tag: the paper is
sourced from FSC certified forests
ensuring that it is made from
responsibly managed forests.

Base Spirit: made on site from peas,
a more environmentally friendly crop
that does not require synthetic nitrogen
fertiliser to grow. The emissions for the
production of the spirit are offset
with Gold Standard.

Botanicals: grown on-site or purchased
from reputable suppliers. Any emissions
associated with this activity are offset
with Gold Standard.



SCIENCE, NATURE AND HUMAN INGENUITY COMBINED

The most innovative and surprising feature of Nàdar Gin and Vodka is the use of the humble pea. As a field to bottle farm and distillery, Arbikie is uniquely able to experiment and innovate by distilling unconventional crops as a base spirit and assessing their carbon impact.

It is in the field where the unassuming pea becomes the hero. Growing this crop means no nitrogen fertiliser is needed, avoiding the negative environmental impact of its production and use. Including fields of peas on our farm also benefits the ecosystem by supporting pollinating insects and improving soil quality – aiding subsequent crops.

The residue left over from our distillation processes can also be used as a protein rich animal feed, reducing the dependency on imported feed – its wider use could even help solve Europe's animal feed eco-challenges.



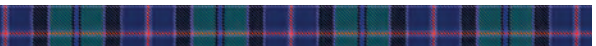
MORE ABOUT NÀDAR GIN: visit arbikie.com/nadar-gin

MORE ABOUT NÀDAR VODKA: visit arbikie.com/nadar-vodka

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NÀDAR GIN AND VODKA HERE'S THE SCIENCE



Industrialised agriculture is heavily reliant upon synthetic nitrogen fertilisers and imported protein feeds, posing environmental and food security challenges. Increasing the cultivation of leguminous crops that biologically fix nitrogen and provide high protein feed and food could help to address these challenges.

A report has been compiled on the innovative use of an important leguminous crop, peas (*Pisum sativum* L.), as a source of starch for alcohol production, yielding protein-rich animal feed as a co-product. Scientists undertook a life cycle assessment (LCA) to compare the environmental footprint of 1L of packaged gin produced from either 1.43kg of wheat grain or 2.42kg of peas via fermentation and distillation into neutral spirit.

Allocated environmental footprints for pea-gin were smaller than for wheat-gin across 12 of 14 environmental impact categories considered. Global warming, resource depletion, human toxicity, acidification and terrestrial eutrophication footprints were, respectively, 12%, 15%, 15%, 48% and 68% smaller, but direct land occupation was 112% greater, for pea-gin versus wheat-gin. Expansion of LCA boundaries indicated that co-products arising from the production of 1L of wheat - or pea-gin could substitute up to 0.33 or 0.66 kg soybean animal feed, respectively, mitigating considerable greenhouse gas emissions associated with land clearing, cultivation, processing and transport of such feed. For pea-gin, this mitigation effect exceeds emissions from gin production and packaging, so that each litre of bottled pea-gin avoids 2.2kg CO₂ eq. There is great potential to scale the use of legume starches in production of alcoholic beverages and biofuels, reducing dependence on Latin American soybean associated with deforestation and offering considerable global mitigation potential in terms of climate change and nutrient leakage – estimated at circa 439 Tg CO₂ eq. and 8.45 Tg N eq. annually.

REFERENCE: Lienhardt T, Styles D (School of Natural Sciences, Bangor University/Ryan Institute, National University Ireland Galway), Black K (Arbikie Distilling Ltd), Saget S, Williams M, Spillane C, (School of Natural Sciences, Trinity College Dublin), Porto Costa M, Chadwick D (School of Natural Sciences, Bangor University), Rees RM (Scotland's Rural College), Iannetta PM (Ecological Sciences, The James Hutton Institute), Walker G (Division of Food & Drink, Abertay University). 2019. Just the tonic! Legume biorefining for alcohol has the potential to reduce Europe's protein deficit and mitigate climate change. *Env Int* 130:article 104870