# NEWSLETTER 2022

INTERNATIONAL AGRICULTURAL INVESTMENT

InvestAg

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## Introduction

### *Inflation*

Even before Russia's invasion of Ukraine, post Covid food price inflation did not look temporary. Increased upstream input costs e.g., fertilizer due to high energy prices, expensive transport, and disrupted supply chains, had all created higher prices downstream. The frequency of extreme weather events has also taken its toll.

The horrendous Ukrainian situation and the resultant sanction on Russian exports has not only caused considerable instability, but also magnified inflationary pressures hugely across the board. Aside from oil and gas, Russia is also a big exporter of nitrogen and potash, with fertilizer prices now at an all-time high.

Russia and Ukraine collectively produce 25% of global wheat exports, so a reduced supply on the world markets will not only increase bread prices, but also animal feed costs. The two countries also produce 80% of global sunflower oil supplies, with substitute vegetable oils markets already tight in part due to higher energy costs.

Food price inflation clearly puts pressure on peoples' disposable incomes, particularly so in low-income countries. However, food demand is forecasted to grow at 1.3% pa, as the world population continues to increase.

Prior to the Ukrainian crisis, the post Covid inflationary environment, had already been reflected in increased farmland values in some markets e.g., 18% in the US Mid-West Corn Belt and 13% in Australia.

Farmland is an acknowledged store of wealth in inflationary times - *are higher performing permanent cropping investments now a particularly attractive proposition?*

### *Sustainability*

We live in a world where consumers are demanding more sustainable, traceable, and healthier food. Responding to these demands, agriculture is continuing to undergo a quiet revolution with considerable new advances in AgTech and adoption of sustainable and regenerative farming practices. But what are the practicalities involved and will these practices become mainstream?

### *Natural Capital*

The rewilding concept is challenging the traditional "management model" of the countryside, but to date has been largely done by wealthy landowners. There are also many other new initiatives emerging, both government and corporately funded, enabling farmers and landowners to monetise their natural capital, with food production on certain land types perhaps becoming of secondary importance. Tourism and catering are also a growing area of expansion here.

Agriculture and food contribute between 21-47% of global greenhouse emission. However, could agriculture be an integral part of the solution, with farmers able to take advantage of emerging carbon sequestration / offsetting markets as another income stream?

The EU with its "Green Deal" and other Western governments including in the UK, see halting biodiversity loss a key target and interwoven with a drive to Net Zero. Will that mean farmers end up managing conservation projects on their land, paid for either by governments or private companies needing biodiversity offset?

## Will regenerative farming be the new normal?

Intensive annual and permanent crops can result in damage to biodiversity, soil degradation, water wastage and pollution, and high carbon emissions. Regenerative agriculture, despite its sceptics, now has a growing movement of advocates who see it as the future of profitable farming in the long-term and one of the solutions to global warming.

Soil health is key to regenerative farming, with the need to rebuild soil organic matter and increase soil biology to improve degraded farmland, to better retain water and store carbon. The idea is that healthier soils grow stronger crops with higher returns, whilst removing carbon from the atmosphere.

*Regenerative farming has five key principles -*

| | |
|---|---|
| **1 Minimising soil disturbance** | Prevent disturbance of micro-organisms |
| **2 Elimination or reduction in chemical usage** | Prevent soil degradation, damage to biodiversity, water pollution and high greenhouse gas emissions |
| **3 No bare soil** | Cover crops to prevent erosion, evaporation and weed growth, plus retaining nutrients and sources of food for micro-organisms |
| **4 Increasing plant or crop diversity** | Reduce pests, diseases, and uptake of nutrients to improve soil health |
| **5 Livestock grazing** | Provides organic matter, stimulates plant growth, enabling the plants to capture more carbon into the earth and nutrient recycling by feeding the micro-organisms |

Undoubtedly more sustainable and regenerative farming practices will become more and more mainstream. It will be fascinating to see how such practices are widely adopted, not just into previously monoculture arable farming businesses, but also high value intensive permanent cropping systems.

InvestAg is advising on new regenerative and vertically integrated permanent cropping agribusiness projects in Iberia. This requires the integration of livestock grazing and other practices that adopt key regenerative farming principles.

## Farmers to profit from the road to Net Zero

Public concerns over global warming are resulting in a shift in resources to create compliant standards and voluntary financial carbon markets. Whilst an embryonic market, new sources of capital are being attracted to the sector from companies looking to offset their carbon footprint. This presents opportunities for farmers to provide carbon sequestration services, with values per tonne expected to increase from current values in regions where there are already markets.

### *The EU Green Deal*

The EU Green Deal brings several strategies across multiple sectors to reduce carbon emissions and an objective to make Europe the first climate-neutral continent by 2050. As part of the Green Deal, the "EU's Farm to Fork Strategy" published in 2020 sets out the EU's vision for the future of the European agricultural food system.

The EU's Farm to Fork Strategy is heading in the direction of regenerative farming, with the following ambitious targets by 2030:

- 50% reduction in use and risk of chemical pesticides
- 50% reduction at least in nutrient losses, ensuring no deterioration on soil fertility
- 20% reduction at least in fertilizer use
- 50% reduction in the sales of antimicrobials for farmed animals
- 25% of farmland to become organic

### *Carbon Auditing*

Some forward-thinking farmers and landowners are starting to undertake audits of their farms' direct emissions from owned or controlled sources of carbon (Scope 1 Emissions). This is in order to have the ability to manage their carbon in the future for multiple reasons:

- to profit from carbon sequestration as a tradeable commodity
- as a benchmark for future improvements
- the need to satisfy off-take customer requirements
- possible requirement to attract future investment into the business (equity/bank debt)
- as a preparation for potential carbon taxation measures.

With a shift to a more sustainable agri-food systems becoming imperative, the big agribusinesses in their drive to reach net zero, will understandably be considering measuring their entire carbon footprint by utilising complex Greenhouse Gas (GHG) protocol emission calculation tools for Scope 1, 2 and 3 emissions:

*GHG Scope 1, 2 and 3 Emissions -*

| | |
|---|---|
| **Scope 1** | Direct emissions - owned or controlled sources of carbon |
| **Scope 2** | Indirect emissions - production of purchased electricity, heating and cooling |
| **Scope 3** | All other indirect emissions - including from a company's supply chain |

## Financial rewards for farmers to improve biodiversity

The global population of wild species has fallen by 40% over the last forty years with one million species at risk. Climate change and biodiversity loss are interwoven.

Restoring forests, soils and wetlands is considered key by the EU and other governments to reversing the impact of unstainable human activities.

### *EU-wide Biodiversity strategy*

The "EU Biodiversity Strategy" published alongside "Farm to Fork", is a proposal to halt biodiversity loss in Europe. The strategy plans to establish protection area status for 30% of land and 30% of the sea within Europe.

Also, to restore degraded ecosystems by increasing organic farming, reversing the decline in pollinators, restoring rivers, reducing pesticide usage by 50% by 2030 and planting 3 billion trees by 2030.

The EU plans to unlock Euro 20 bn/ year for biodiversity from EU funds, national and private funding.

European farmers and landowners clearly have an important role to play to help satisfy these ambitious goals. They will need to incorporate biodiversity into their business plans, not only to "do their bit", but also to be financially rewarded for so doing.

### *Is the UK Government setting an example for the EU?*

The UK Government's replacement of EU farm subsidies post BREXIT with ELM (Environmental Land Management schemes), is an example of how public funding of farmers might also change within the EU.

Instead of UK farmers being paid subsidies on areas farmed for food production, they are going to be rewarded through environmental land management schemes e.g., for biodiversity projects.

No doubt the EU will be monitoring the evolution of the ELM carefully, to see how successful it is. However, a lot of detail has still to be decided by the UK government, including actual payment levels, making it difficult for the farming community to plan ahead. Domestic food supply security will remain important to the UK.

### *Biodiversity Offsetting*

An example of how this could work from a private funding perspective is again from the UK. The UK Government's new planning policy requirement under the Environment Act 2021, and planned to be implemented in 2023, is for property developers to demonstrate that their actions will result in an increase in a minimum of 10% biodiversity net gain (BNG), measured by an agreed standard metric.

Developers can do this by either delivering BNG onsite, by securing offsite creation/enhancement of habitat in the local area, or by purchasing BNG credits. Many expect developers will want to maximise their real estate footprint on-site and therefore more likely to look to accomplish their BNG requirements either offsite or by buying credits.

There is currently an emerging market for BNG in areas where UK local authorities are already applying the policy, with farmers and landowners being paid to undertake long-term biodiversity conservation projects paid for by property developers.

This is either through bespoke agreements with landowners, or through habitat banks. Habitat banks are where developers can buy credits in forward funded offsite landscape scale habitat creation projects.

One UK financial group is offering landowners 30-year agreements in the form of a lease and a habitat management plan to be carried out by the landowner.

This group is forward funding the costs of these habitat banks and then selling BNG credits to developers.

## Permanent crop allocations continue to increase

Permanent crops have attractive long-term capital appreciation and income profiles. Their productive lives ranging anything from say eight to fifteen years for some berry fruits and twenty-five to fifty years for tree crops depending on the crop type.

Unlike arable cropping investments, where 90% of the value is in the farmland itself, the capital costs of developing permanent cropping orchards, planting and installing irrigation/infrastructure, can run to 40-60% of the total costs. This high CapEx, plus the initial time lag until orchards reach maturity, is a barrier for many operators looking to create scale quickly.

*Newly planted irrigated almond orchard*

This presents opportunities for long-term patient capital, be that directly in the operating businesses, or on a sale and lease back type deal as a landlord owning the farmland and possibly the trees and infrastructure too.

Institutional investors are continuing to allocate more funds to higher value permanent cropping, some with a 20-30% allocation within their agricultural portfolio. This is for both diversification reasons and the desire to increase investment returns. However, higher returns come with greater risks e.g., consumer tastes changing over the lifetime of the crop.

There are three important elements to the permanent crop supply chain 1) producing 2) packing/processing and 3) trading/marketing. Investors can therefore profit not only from farmland investments, but also added value vertically integrated midstream activities. These types of investments also appeal to private equity funds targeting food/ agribusiness and looking for 15-20+% IRR returns.

*New almond packing plant*

## Iberia attracting investor interest

Many institutional agricultural investors initially targeted California for their permanent cropping allocation, but the weight of capital has driven financial yields down in the state. This and the many publicised water issues in California has pushed these investors to look further afield. There have also been investments by institutional investors in permanent cropping in Australia, New Zealand, Chile and Peru. Iberia is the relative new kid on the block for institutional type investors.

Western Europe had traditionally been seen as too expensive, low yielding and difficult to deploy institutional levels of capital in agriculture. However, with the more recent desire to invest in higher returning permanent cropping, there has been a growing volume of both international institutional backed funds and also Iberian private equity investors, who have been targeting investments in permanent crops, including in vertically integrated agricultural producers.

InvestAg has been advising on permanent cropping investments in Iberia since 2018, working with both family offices and institutional investors. Investors have been targeting investment opportunities in nuts (e.g., almonds and pistachios), olives, citrus, top fruit, and blueberries. We are now seeing a shift in focus towards regenerative and sustainable agricultural projects, as well as the desire to create investments that are climate positive and able to profit from future carbon markets within agriculture.

## Why Spain and Portugal?

There are only a few areas in the world like Iberia that have favourable agronomic conditions of both a Mediterranean Climate and a diverse range of soil types to grow crops such as almonds, olives, citrus, peaches etc. Even fewer with developed economies e.g., other southern European EU countries, some parts of Southern Australia and California.

Iberia has a wide climatic range within the region and can harvest tree and berry fruits, vegetables, and salad crops earlier than in Northern/Central Europe. This enables farmers to achieve higher prices and profits for products during the pre-season.

Whilst undertaking due diligence on water rights is key, there is a plentiful supply of water in certain regions and higher levels of rainfall than other regions in the world that grow Mediterranean crops. Spain has 3.8 m ha of irrigated land and Portugal 240,000 ha.

Portugal's Alqueva Dam, completed in 2012, is Western Europe's largest reservoir and is currently capable of irrigating 120,000 ha, with a further 50,000 ha coming on stream.

*Alqueva Dam Reservoir*

This has transformed Portugal's agricultural fortunes, with significant new plantings. There are now 66,000 ha of olives and 11,000 ha of almond orchards in the Alqueva permitted irrigation area. With growing investor interest, land prices within this area have increased by around 50% over the last five years.

Spain and Portugal enjoy easy access to the EU market (the largest in the world) with good transport infrastructure and an ability to truck produce to both Northern Europe and local domestic markets.

Their EU membership obviously provides relative political and economic stability, as well as an EU legislative framework, tariff free EU markets and EU agricultural subsidies and grants. Grants schemes, when available, can be attractive when planting new orchards or constructing new packhouses/processing plants.

## Iberian Growing trends

### *Almonds*

Because of almonds' higher financial returns compared to many other permanent crops, there has been an increasing interest in planting new large-scale irrigated almond orchards in Iberia.

Driven by the shift to healthier diets, there has been a growing demand for almonds globally with 1.03 m tonnes produced in 2014/2015, increasing to 1.76 m tonnes in 2020/2021. The EU is the biggest importer worldwide (40%). The US is the biggest exporter and produces 79% of global production in California. Spain currently produces about 5% of global almonds, the third largest producer, with Australia second at 7%.

Large-scale irrigated almond orchards in Portugal are a relatively new phenomena and have only really become possible because of the development of the Alqueva dam irrigation area, which has seen a significant increase in new plantings in the last five years. This includes some pioneering planting of higher yielding Californian soft-shell varieties, rather than the traditional Mediterranean hard-shell varieties, which still show good but not quite as high profit margins.

Soft shell almonds are more susceptible to frost because of their early blooming varieties, but this can be combated by installing micro sprinkler irrigation infrastructure. Large numbers of professionally managed honeybee hives are also required for pollination, unlike for hard shells varieties. The CapEx costs are therefore that much higher for soft-shell varieties, but so are the potential rewards.

Whilst farmland prices have been increasing in Iberia, development costs are still about 50% cheaper than in California. Aside from California's long-term water issues, Iberia can also potentially take advantage of higher almond prices, when yield levels are lower in California in any one year.

### *Blueberries*

European consumption of blueberries is rapidly increasing, and the big distribution companies such as Driscolls are eager to supply high volumes of quality berries to this growing market. Europe's import of blueberries increased from 45,000 tonnes in 2015 to 113,000 tonnes in 2019.

To put this in perspective, the US annual consumption per capita in 2019 was 1.2-1.5kg of blueberries, whereas only 0.2-0.3kg in the EU. With current estimates, the EU demand will increase to 0.86kg per capita by 2026. There are evidently good opportunities for producers to supply this growing market.

The dominant regional supplier to Europe from October-January is South America. However, there is an increasing demand for higher quality blueberries with a longer-shelf life than South America can offer due to the older varieties they currently grow.

This is pushing up prices for higher quality berries, as supplies are limited. Prices peak during February and March for blueberries being sold in the European markets, as supply in these months is low.

Some regions of Portugal have an ideal climate to yield fresh blueberries in this time window, creating very attractive financial returns for operators who are developing new blueberry plantations.

European blueberry production is growing to meet the demand. With the right varieties, management, and marketing, blueberries can be one of the most profitable crops of all.

### *Citrus*

The EU is the third largest citrus producer in the world after Brazil and China, with Spain providing 80% of the EU's production with about 330,000 ha under production. Spain is the largest global exporter of oranges/soft citrus, and the largest exporter of lemons after Mexico.

The fortunes of orange producers have been buffeted by cheaper imports of oranges from RSA and North Africa. Over the last three decades, consumers have also shifted away from eating oranges to easier eating citrus fruits such as mandarin, satsuma and clementine. The citrus sector also competes with other fruits now available all year round, regardless of the seasonality, driven by supermarket product placing to win customers.

As a result, the hectares of oranges grown in Spain have shrunk by about 15,000 ha over the last 10 years. Spanish easier eating citrus fruit hectares have also shrunk, but yields have increased to compensate.

Lemon consumption has become increasing fashionable, with only a temporary blip during the pandemic. The lemon sector needs considerable promotion however to keep to the same growth trajectory.

Where there is change, there is often opportunity for investors. To remain competitive, citrus producers and packers are needing to expand to satisfy the big European retailers demands for a consistent supply of large volumes of well-priced quality produce. There has been a growing trend of consolidation, with family-owned producer/packing companies either merging or being sold to other groups to achieve economies of scale. Both local and international private equity funds have created a strong market for decent businesses with large contracts from the big EU and UK retailers.

There is still a place and good margins for medium sized high-end producers and packers working with royalty bearing varieties for supply to the top end retailers e.g., mandarin Nadorcott and Orri varieties. There are also interesting opportunities to develop new greenfield orchards, for the varieties the markets are demanding.

### *Olives*

Whilst is has not been uniform, with various ebbs and flows, the global market for olive oil has doubled in the last thirty years. This has been driven by consumer demand from the world's most developed economies, as well as Brazil and China. This is due to requirements for healthier cooking and the much-lauded health benefits of a Mediterranean diet.

Spain is the largest producer of olive oil globally, with about 45% of total production, the majority of which is grown in Andalucía. Whilst Portugal only produces 3.5% of global production, it punches well above its weight with the quantity of higher-grade virgin olive oil it produces. Several of the larger producers operate orchards in both Iberian countries e.g. Sovena.


The volatility of olive oil prices has led to a shift away from traditional and small-scale production, to intensive and superhigh density totally mechanised irrigated orchards, geared towards production of the higher value virgin olive oils. This has enabled economies of scale and good profitability for large producers, even when olive oil prices are low. This is due to their cost of production being around 40% less than traditional orchards and their ability to secure premium prices because of optimum harvesting timings enabled consistent production of higher quality olive oils e.g EVOO.

There are now several institutional players in the olive oil industry, but there is still a need for capital to continue the conversion to more mechanised intensive and super high-density production. This offers good opportunities to profit from developing large-scale greenfield operations.

*Young super high density olive orchard*

## INTERNATIONAL AGRICULTURAL INVESTMENT

**InvestAg LLP**

InvestAg LLP is an investment advisor and asset manager for international agricultural investors with the ability to access and advise on significant agricultural investment opportunities in many parts of the globe through a network of country partners and associates. We work with institutions, investment managers and family offices.

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