



FOCUS

THE KIWI CHALLENGE

The green one:
tastier,
healthier and
ever-“greener”

by Fabrizio Pattuelli

With global production undergoing explosive growth, good profitability for producers and high levels of appreciation among consumers, kiwis are continuing to play a significant role in Italy and abroad. But more can be done, especially for the green-fleshed variety: a project by the Alegra Group is focusing on the organoleptic qualities and the environmental and economic sustainability of the Italian-grown product, aimed at (re) conquering a market increasingly invaded by foreign production



Figure 1
**WORLDWIDE KIWI PRODUCTION
2019-20**

China	2,100,000*
Italy	540,013**
New Zealand	510,000
Greece	270,000
Iran	250,000*
Chile	160,000
Turkey	65,000*
France	55,300
USA	34,000
Japan	30,000

Source: Author's own figures
using data from different sources

*Estimated figure

**Source: Istat

In the past few years kiwis have been enjoying close attention from all players in the supply chain, from growers through distributors to consumers. In production terms it has been one of the few fruit species capable of ensuring satisfactory and consistent profitability over the years, while for distributors it is, all in all, a product that is easy to manage at the point of sale and that, again, generates an attractive level of cash flow. Consumers, finally, value the product's undoubted nutraceutical properties and appreciate the segmentation currently taking place at the varietal level, with the varying sensorial profile of different products suiting all palates.

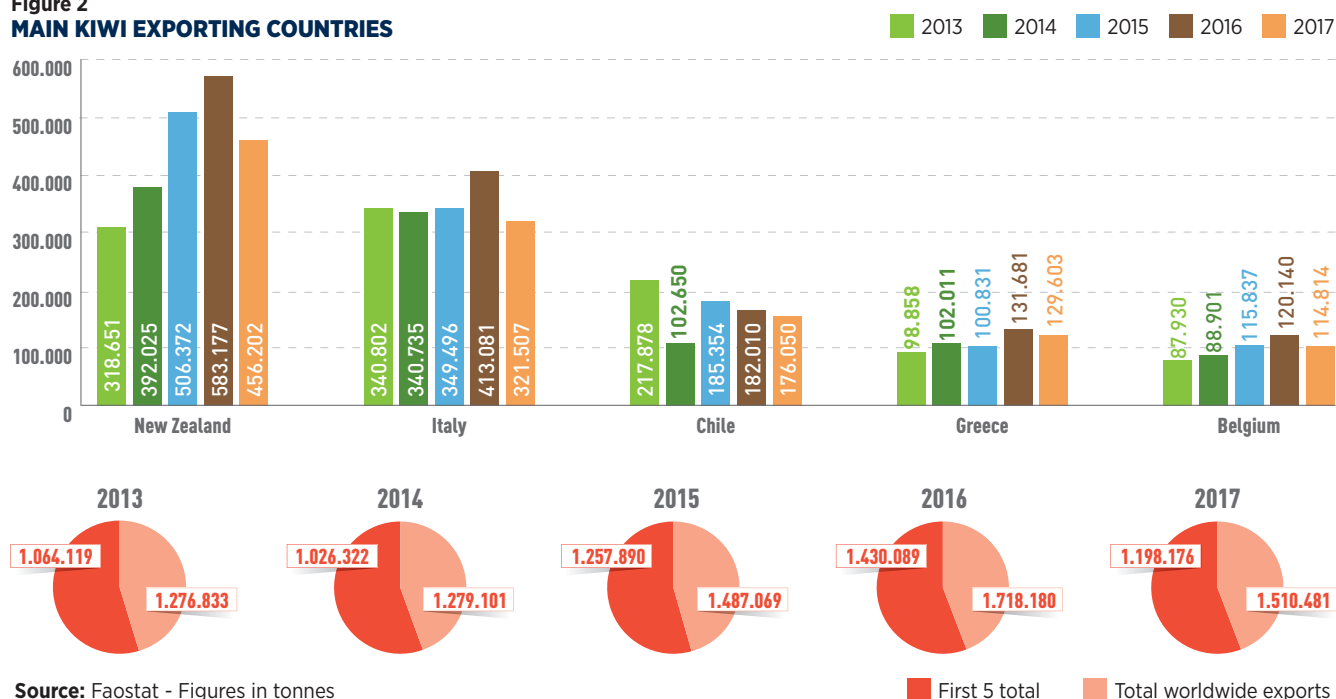
Worldwide interest in the product is confirmed by the production data, which shows an increase from 2.5 million tonnes to over 4 million tonnes between 2007 and 2017 - a rise of over 60%. In terms of growing area the trend is even more remarkable, rising from 156,000 hectares in 2007 to more than 257,000 hectares in 2017, an increase of 77%. Data relating to the 2019-20 campaign, shown in **Figure 1**, shows that China continues to have the lion's share of production, alone accounting for nearly half of global output at approximately 2.1 million tonnes, followed by Italy with 540,013 tonnes and New Zealand with 510,000 tonnes. All this has been taking place within a difficult phytosanitary context which, since 2008 - primarily due to the appearance of *Pseudomonas syringae* pv *actinidiae* (an agent of bacterial cancer affecting the *Actinidia* genus) - has placed worldwide kiwifruit production under severe strain alongside the

so-called kiwi blight, the causes of which are still little understood. Although kiwi fruit has a limited share of global fruit production, accounting for under 2% of the total output of non-tropical fresh fruit (excluding citrus), it is nonetheless one of the most dynamic species in terms of trade flows, showing one of the hi-

ghest growth rates overall. As can be seen in **Figure 2**, in 2017 the worldwide flow of imports/exports was in excess of 1.5 million tons, with a growth trend of 25% over five years and 45% over a decade. Excluding China, which continues at present to have a low presence on international markets, nearly

90% of total world production is traded. Seventy per cent of exports are from New Zealand, Italy and Chile, the historic kiwi producing countries, while the last few years have also witnessed strong growth from Greece, a country that benefits from lower production costs than its competitors. **B**

Figure 2
MAIN KIWI EXPORTING COUNTRIES



Italian production

Although the kiwi is a plant of Chinese origin it was the New Zealanders who introduced it to the world when, at the beginning of the 20th century, they selected the Hayward variety.

The first Italian kiwi plants were planted in the 1970s and within a few decades Italy became the world's

second largest producer, demonstrating its high suitability to this crop. Italian production is particularly focused on three regions: Lazio, with 33% of the total Italian growing area and mainly concentrated in the province of Latina, followed equally by Piedmont and Emilia-Romagna, each with 17% of the total growing area. In this latter region, where

commercial companies with a dominant export position are located, kiwi plants occupy a large swathe of foothills and hill country in which they have largely replaced vines, khakis and peaches. This is true of the upper Marzeno and Lamone valleys near Faenza (province of Ravenna), where the plants appear as a spectacular and extensive dark

Figure 3

PARAMETER	DATA	NOTES
Kiwi production	42,000 tonnes	Green flesh (70%) and yellow flesh (30%)
Kiwi growing area	2,500 hectares	1,750 hectares cultivated with green kiwis and 750 with yellow kiwis
Kiwi Producers	700 producers	Represent 18% of members who mostly produce both green and yellow flesh varieties
Agrintesa countryside technicians	40 technicians in total	To follow and guide producers in all phases of the agricultural cycle
Agrintesa countryside technicians specialising in kiwis	15 specialist technicians	Mainly deal with kiwis, working with both the green flesh and yellow flesh varieties
Kiwi category specialists	4 specialists	Specialists dedicated exclusively to kiwis, responsible for coordinating the working groups
Technical visits to producers per year	40 visits per producer	Essential for carefully following all phases of the growing cycle
Technical visits per year	28,000 visits	Weekly visits to ensure flawless product quality each year
Quality control for product monitoring (2019)	1,000 samples each year	Kiwis are the product with the highest rate of control in the organisation
Analytical determinations for the monitoring of residues (2019)	400 analyses	Entrusted to outside laboratories and performed on both the green flesh and yellow flesh varieties

green mantle until late autumn. Here in this highly suitable terrain lies the growing area for produce marketed by Alegra and created by fruit growers belonging to the Agrintesa cooperative; average kiwi production is over 40,000 tons, equivalent to about 10% of the Italian total. These numbers have enabled the cooperative to consolidate not only its role as leader nationally but also to establish a very strong positioning on international markets, with 70% of production exported to more than 50 countries. These results are made possible by an optimal combination of production factors. First

of these is the strong suitability of the land around Faenza, where the soil and weather conditions are particularly favourable to kiwi growing. This is combined with a very high level of agronomic know-how among the growers, who in turn are assisted at every stage by the cooperative's technical office which guides and directs them towards the most suitable techniques for creating the right product for their target markets. A few figures, much better than any verbal description, can show the high level of specialisation achieved by the Agrintesa cooperative, summarised in **Figure 3**. Particularly of note is the

commitment made to applying sustainable and profitable production techniques from a quality perspective, with 28,000 visits by field technicians to the kiwi growers each year. It is probably thanks to this very high level of attention to the agronomic aspects that damage from PSA and kiwi blight has not been as significant as in other Italian growing areas that lack this degree of professional and technical management. This level of attention is not confined to the fields but continues even after harvest, with quality checks and analyses for ever-more frequent and meticulous monitoring of residues. **B**

The Gruppo Alegra project

From an already high level, Alegra has decided to raise the bar even further by launching on the market a premium Valfrutta-branded product aimed at combining excellent organoleptic quality with a highly sustainable production process.

This is a dual challenge, in view of the fact that the kiwi sector has in recent years been hit by some extremely dangerous diseases that have greatly complicated the growing process alongside increasingly tough competition in the markets. Consumers meanwhile, have become ever-more demanding, as shown by research conducted by the Agroter Monitor Ortofrutta. This reveals that Italian consumers place healthiness first and foremost (in the sense of zero or low usage of pesticides), mentioned by over 70% of respondents, followed equally by guaranteed quality and (Italian) origin (both 58%). Delving further into the analysis on kiwis, the issue of flavour emerges even more clearly: sweetness is the most sought-after characteristic among 75% of buyers, but is all too frequently not found. Looking further afield to Germany - the leading importer of the Italian product accounting for 15% of total export volumes - customers there prefer a slightly astringent aftertaste that leaves the mouth clean (cited by over 40% of respondents) particularly in the case of green-fleshed kiwis, whereas in Italy sweetness is the dominant re-

HOW DO YOU USUALLY EAT A KIWI?

	Italy	Germany
By cutting it in half with a knife and scooping with a spoon	36%	81%
By peeling it with a knife and cutting it into slices	67%	23%
By peeling it with a knife and cutting it into pieces for fruit salad	25%	18%
By peeling it with a knife and cutting it into pieces for a smoothie	7%	5%
Other	1%	4%

Source: author's own figures using Agroter Monitor Ortofrutta - CAWI 2019 data

quirement. Differences also emerge in consumption methods: the main approach in Germany is to cut the kiwi in two with a knife and then scoop it out with a spoon, while Italians prefer to peel it and cut it into slices. The findings highlight differences



WHICH CHARACTERISTICS OF KIWIS DO YOU APPRECIATE MOST?

	Italy	Germany
Sweetness	75%	53%
Slightly astringent aftertaste that leaves the mouth clean	28%	44%
Presence of few seeds	26%	16%
That the white central part is easy to cut	29%	21%
Presence of few "hairs" on the skin	1%	4%
Flesh with a texture that allows you to separate it from the skin with a spoon	24%	20%
Skin that's easy to peel with a knife	15%	7%

that need to be considered when serving these markets, although issues related to flavour quality and sustainability will grow in importance whatever the target market to the point of becoming basic prerequisites for acceptability.

The quality challenge

Market research on green kiwi fruit has clearly demonstrated that consumers need the guarantee of fruit with a good flavour, something that is not always the case at present.

This quality-related issue is shared by several other fruit and vegetable products and can be regarded as a long-standing problem within the sector, but it is worth highlighting that in the case of kiwis the promise of good flavour is particularly difficult to keep. The main difficulty with this crop is being able to produce fruits with a sufficient and uniform level of dry matter, maintaining consistency throughout the marketing season. This is the essential requisite in guaranteeing a good flavour and being able to serve the most distant export markets.

Achieving this objective firstly requires good working practices in the field. We have already seen that Agrintesa's production is located in a particularly suitable growing area, with expert fruit growers assisted by a network of professional technicians who can help them in all the various production phases, constantly monitoring the growth of the fruit to ensure that quality parameters are in-line with set values at the moment of harvest.

These parameters vary according to the market and the type of customer, so that production techniques must also be adapted accordingly. Currently, in the flowering season -

and therefore several months before harvest - it is already possible to guide the plants in each plot towards pre-established levels of dry matter, monitoring this aspect constantly.

This highly professional approach is made possible through the know-how built up over the years by producers and technicians with the increasing use of modern technologies such as sensors and decision support systems (DSS), which assist in precisely guiding the operations of fertilisation, irrigation and plant protection.

Agrintesa, essentially, is giving great impetus to so-called precision fruit growing, seeing kiwi fruit as the ideal crop for the application of this innovation. B



THE GREEN KIWI ID CARD

For Alegria and Agrintesa, a propensity for innovation and a desire for constant improvement are distinguishing traits and an integral part of their DNA. This approach is applied to all the fruit and vegetable products that these two companies handle including, of course, the kiwi, which - as we have been reading in these pages - is subjected to constant varietal research and the best agronomic practices to guarantee consumers an excellent product in every sense. This is why they have created the "ID card of the kiwi of the future": a list of clear objectives for each producer that sets a goal to aim at. Some points on the list below are already a reality on a daily basis, as previously described, while others represent a challenge for the years ahead. A challenge that Alegria and Agrintesa are strongly determined to win.

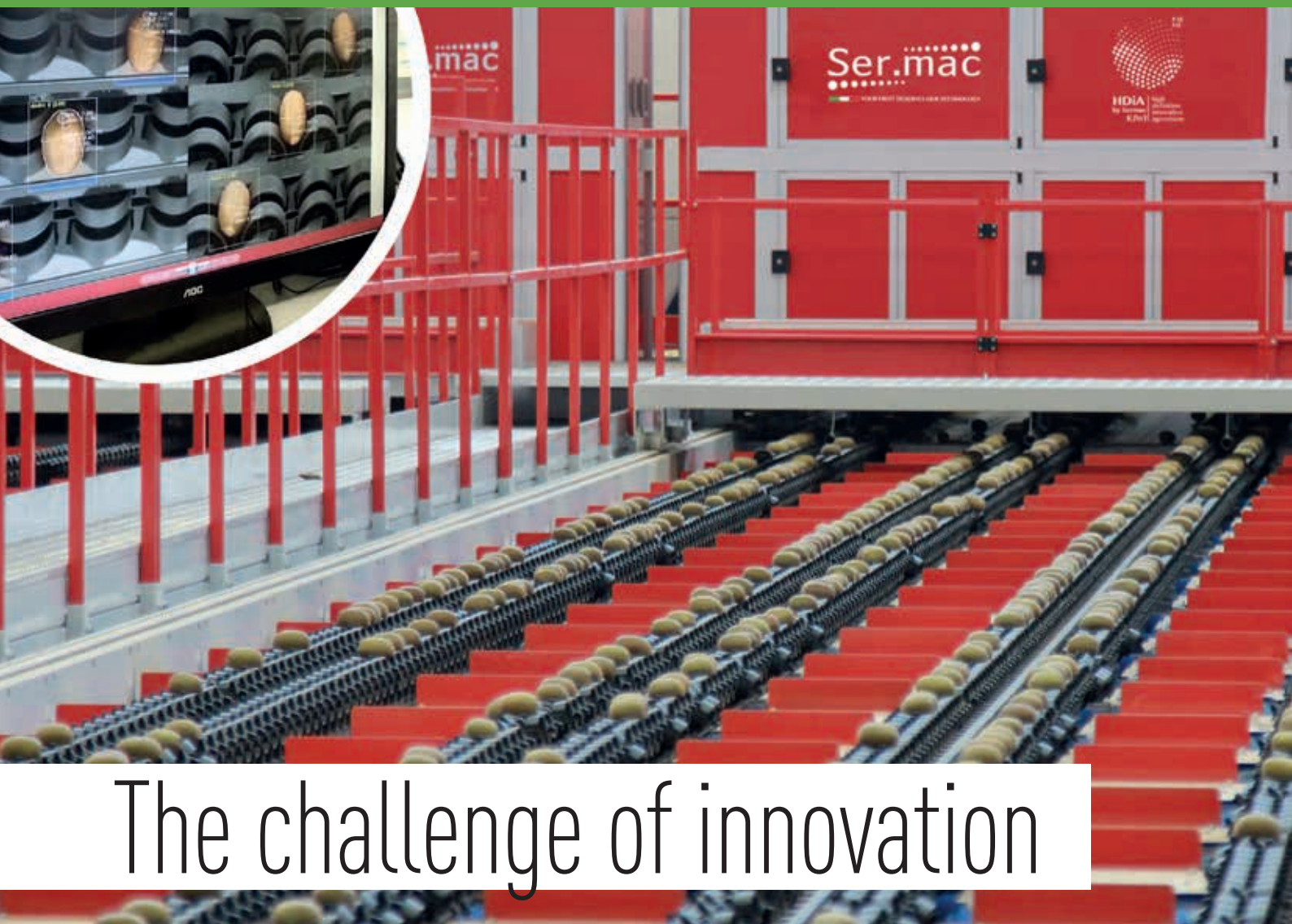
The kiwi of the future

- No usage of growth regulators
- Cultivation with the use of balanced nutritional elements
- The use of anti-insect nets (if necessary) to avoid the use of chemicals
- The rational use of water for irrigation by means of sensors and decision support systems to optimise the use of non-renewable resources and to minimise waste
- Pollination management to obtain uniform, well-formed fruits
- Early pruning to balance production loads, and "cosmetic" pruning at the pre-harvest stage to remove malformed or defective fruits
- Calculation of ripening curves one month after harvest to establish the optimal harvesting period
- Monitoring of quality parameters: dry matter in primis, with the aim of optimising this at values of 17 or above



THE PRODUCERS

At the Aristide Castellari farm at Faenza (RA) the Hayward variety of kiwis were first grown in 1985, and since then have been focused upon strongly as a product that yields highly satisfactory results (also in terms of their cost/benefit ratio): “If Agrintesa, of which I am Vice President, is a leader in the kiwi market then this is down to the almost fanatical care that we devote to quality: every aspect of the production process has been developed over time to achieve a better, more sustainable fruit from both the environmental and economic point of view. There are some aspects, irrigation for example, that are now subjected to the highest degree of precision: for some years my farm has used control units to manage the irrigation system along with sensors to detect the exact level of humidity, and these switch on automatically only when they are actually needed. This type of irrigation rationalises our use of water by using it at the best times and in the best way for the plants, and this represents both a saving of resources for the farm and a benefit for the environment: water comes at a cost, both financially and socially, and for this reason we’re glad to save in both senses while maximising the crop’s potential.” This care is also reflected in the use of agrochemicals: “We use an integrated agriculture approach, combining defensive netting systems with chemicals wherever strictly necessary: we producers are the first people to prioritise the health of the environment, given that this is our “place of work”. “Integrated pest management - confirms Alessandro Patuelli, an Agrintesa member who grows 6 hectares of Hayward kiwis at Cotignola (RA) - is the best thing that could have ‘happened’ to this crop: it combines the minimum indispensable use of chemicals in the field with organic and biodynamic practices. The challenge is getting consumers to understand that these two approaches are ineffective if used individually, and do not guarantee a product that comes up to expectations in terms of quality. The growing of kiwis - he concludes - has now reached a level of excellence that was unthinkable just a few years ago: for this we can thank the innovation deployed by Agrintesa, which for some years has been encouraging its members to invest in irrigation with sensors and a set of practices that enable us not only to save water, energy and time, but also to produce a better quality product”.



The challenge of innovation

Even at the after-harvest stage our innovation touches levels that are virtually unrivalled across Europe. In 2017 Agrintesa inaugurated a kiwi fruit calibration and processing plant, designed by Sermac, which is the most powerful in Europe with 8+8 lines working in parallel for a total of 32 outlets.

The packaging line is made up of two systems working in parallel with an output potential of 18-20 tons per hour. In this new plant the machine's "quality system" monitors all the commercial variables

and external defects of the individual fruits as well as their internal quality - in other words it is able to identify anomalies within the flesh (soft parts, bruises, insect damage, marcescence, over-ripening).

This recognition methodology, called HDIA (High Definition Innovative Agrovision) is the technological "mind" of the system, incorporating a memory for data management using Google Protocol Buffers and powered by a computerised system equipped with artificial intelligence. In simple terms, the more the machine is used the more it learns to recognise and classify the fruit

by their internal and external characteristics via so-called "machine learning". This is of fundamental importance for a fruit and vegetable business, which can thus meet increasingly challenging market demands by offering fruit of a consistent quality level.

Completing the processing plants are 2 rapid cooling tunnels to prepare products destined for overseas export, and 2,000 storage pallet positions. Storage quality has been similarly improved by new ethylene absorbers and humidifiers installed inside 44 storage cells, with a total capacity of 20 thousand tons



The challenge of healthiness

As well as flavour, the other aspect that attracts particular attention is the healthiness of kiwis sold on the market.

This issue is very strongly felt by both Italian and European consumers, who usually regard healthiness as meaning a low (or even zero) presence of agrochemicals in the fruit and vegetables that they buy. Kiwis obviously follow the same logic, and Agrintesa is taking all the appropriate steps to minimise the impact of chemicals in the production process. First of all it needs emphasising that all our kiwi production operations comply with integrated production regulations, with strict constraints on the technical methods that fruit growers can use, to minimise the environmental impact of agricultural practices. While integrated production was made obligatory at the European level in 2014 Emilia-Romagna had already introduced it over twenty years ago, becoming a real reference point in Europe in terms of sustainable production. Against this already virtuous production background, Agrintesa is constantly on the look-out for methods to further improve the ecological profile of the kiwis that it grows. These include, for example, increasing constraints on the use of growth regulators which,



although permitted by the regulations, are not accepted by some markets or by the most demanding consumers. And despite the arrival of new parasites that sometimes necessitate a specific chemical treatment (e.g. the brown marmorated stink bug), agronomists and cooperative members are stepping up their commitment to the use of protective nets on kiwi plants to ensure effective insect control on the one hand and the absence of chemical residues on the other. It is not by chance that analytical determinations on residues by leading external certified laboratories are intensifying, reaching in excess of 400 samples per year.

of product. Finally, the processing facility also houses a modern laboratory equipped with latest-generation instrumentation for monitoring the fruit at the before-harvest, storage and shipment stages.

An analysis of the entire supply chain shows that Agrintesa is able not only to produce what the customer wants but also - and above all - to segregate the whole production process to cater for different individual buyers and markets. In short, many mini-supply chains are created to serve the corresponding number of customers. **B**

The challenge of sustainability

The drive to create an “ever greener green kiwi” is being pursued not only through the scrupulous use of technology but also through continual improvements to the production process to achieve “total sustainability”.

As well as the environmental aspects, therefore, the ethical and economic aspects involving the entire kiwi supply chain are also taken into consideration. At present, sustainability in growing crops is guaranteed by international standards such as the Global Gap certification and its ethical offshoot GRASP, which have been adopted by nearly all of Agrintesa's kiwi producers. In the after-harvest phase Agrintesa has obtained the main quality certifications relating to the process (ISO, BRC, IFS) and in 2018 specifically acquired the SA 8000:2014 certification, an international standard that guarantees respect for workers' rights, protection against the exploitation of minors, and health and safety in the workplace.

In addition to its quality and product certifications Agrintesa decided to undertake a detailed analysis of the environmental impact of the entire kiwi supply chain, a so-called “life cycle assessment” (LCA), as specified in international standards such as ISO 14.040 and 14.044. This study, the only one conducted in Italy to date, was carried out through the company's PO - Apo Conerpo - and consists of two main threads. The first thread involved an assessment

of the crop life cycle, in this case the kiwi crop, managed in-line with different production systems. A detailed analysis was performed of the carbon footprint of a commercially grown kiwi fruit - representing the actual production of Agrintesa - and the efficiency of two different irrigation systems was assessed with a view to optimising the usage of water and energy resources.

The second thread assessed - again in the context of an LCA - the entire kiwi supply chain (i.e. the agricultural phase plus transformation, packaging, storage, transport to the point of sale) in terms of the production of a 1 kg basket of kiwis for large-scale organised distribution. Before analysing the results it is worth mentioning that these studies are extremely complex to carry out, requiring sophisticated instrumentation to read all the necessary data which must then be processed and analysed by specialist researchers. Here we will limit our discussion to the most significant test findings without delving into the more complex technicalities.

Beginning with the carbon footprint analysis it can be noted that a kiwi orchard is a net carbon sequester at a rate of around 4,290 kilos of CO₂ per hectare. This means that growing kiwis does not emit carbon dioxide (the major greenhouse gas responsible for climate warming); on the contrary it “sequesters” this gas, turning it into biomass whi-

ch is then stored in the soil as organic matter. This is a virtuous process that not only confirms the sustainability of kiwi growing but once again emphasises the role of farmers, or fruit growers in particular, as guardians of our surrounding environ-



ment. The study of new irrigation systems also reveals that there is scope for optimising our usage of a precious resource destined to be increasingly scarce in the future, above all if global warming is not halted. In brief, the research compared a “traditional” irrigation method - the classic dripline system - with an innovative system called Ultra Low

Drip Irrigation - ULDI. The innovative ULDI technique involves a large number of water dispensing points at a very low flow rate, enabling improved efficiency in water use.

The drip-dispensing arms were buried at a depth of about 5-10 cm with the aim of reducing evaporation from the soil surface and delivering the water directly to the roots. The trial demonstrated the greater effi-

in the growth of weeds. These reductions in water use enabled lower CO₂ emissions due to the shorter operating times of the irrigation system and reduced weed control activities, with an additional benefit for the environment coming from a decrease in the input of chemicals.

For the past few years this irrigation system has been at the implementation stage among growers, who

others are known to all - for example global warming, the thinning of the ozone layer and water consumption. The environmental impact study demonstrates the differing influence of very distinct phases (agricultural, warehouse and transport) on climate-altering gas emissions, and particularly highlights the major role of transport in final emissions figures; in this context an organised transfer service, using trucks provided



ciency of under-soil ULDI in comparison with traditional drip irrigation: the innovative system was able to maintain the same humidity as the traditional drip method, saving 30% in water volume over the season and using at least 1,500 m³/ha less water to grow similar quantities of product. This result was also achieved through a substantial reduction

have been phasing it in-line with the physiological replacement of plants due to age. Following this replacement plan, 5% of growers are already adopting the system.

As for the LCA analysis, several indicators were taken into consideration. Some of these are very technical, such as the formation of photochemical oxidants, while

by Agrotec, enables rationalisation in product delivery and avoids the transit of agricultural vehicles on public roads. Quality, innovation, health and sustainability: with its kiwi production Gruppo Alegra is ready for the challenge of the markets and for its most severe judge: the consumer, whose final verdict is awaited with a certain optimism. B

A resource for the body worth highlighting on the shelves

by Fiorenza Bertacchi, nutritionist

It assists digestion, is rich in fibre, vitamins and potassium and, thanks to its organoleptic characteristics, is perfect for eating at any time of day. That's why kiwis can and must be promoted by the large retail chains also in terms of their contribution to a correct diet, riding the current wave of healthy eating

Arriving on our tables from China and New Zealand in the early 70s, kiwis are now part of the daily diet of millions of Italians.

Thanks to its simultaneously sweet and sharp flesh this is a highly versatile fruit to use in the kitchen, but what most sets it apart are its many beneficial properties that can effectively counter problems of the digestive and gastrointestinal system in general. Numerous studies have highlighted its important role in supporting digestion (thanks to its actinidine content, a proteolytic enzyme that has the ability to significantly improve the digestion of proteins in the stomach and small intestine), its contribution to an improved balance in intestinal flora (through the prebiotics it contains, including phytonutrients in the form of pectins and polysaccharides of cellulose and hemicellulose) and its significant water, micro-nutrient, fibre and antioxidant content.

USES AND CONSUMPTION

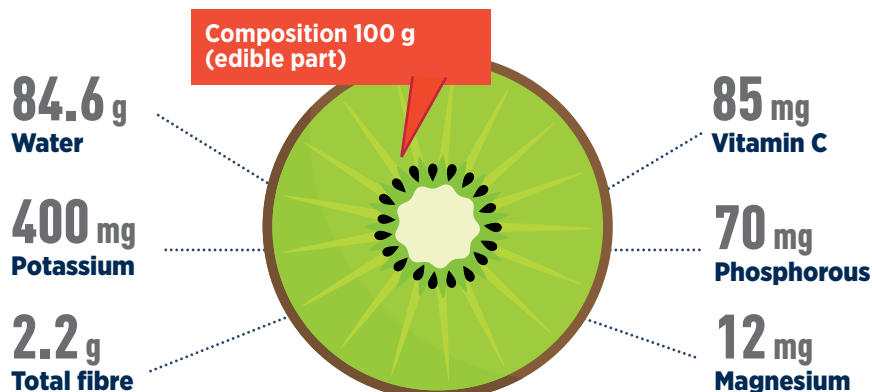
After the purchase phase, during which the texture and colour of the flesh rather than the size of the fruit should be assessed, the kiwi can be used:

- in its natural form or to make juices, smoothies, centrifuges, sorbets, ice creams, shakes, jams, jellies, syrups;
- in sweet and sour sauces to accompany white meats, seafood salads and to make risottos;
- in fruit salads together with pears, bananas and orange juice, and also to garnish cakes and tarts.

Consumption occasions can vary: the fruit's sweetness makes it suitable for eating in the morning, while its sharpness makes it ideal at the end of main meals like lunch and dinner. Apart from in very specific cases (intolerances, allergies and diets specifying a low fibre content for medical reasons), kiwis can be eaten by all age groups: their high potassium and magnesium content in particular makes them ideal for people who play sports, both while training and before strenuous competitive activities.

NUTRITIONAL ASPECTS

Like citrus fruits kiwis are rich in vitamin C (85 mg%), with this quantity per fruit far higher than that contained in lemons and oranges which have only 50 mg%. To this we can add the presence of B group vitamins (particularly B1 and B2) which - together with niacin, traces of carotene, flavonoids, tocopherols and organic acids - have an antioxidant, diuretic and capillary-protecting action. Regularly eating kiwi fruits boosts the immune system, triggering the formation of antibodies to protect against seasonal infections and illnesses. Each fruit also contains calcium, iron, magnesium, phosphorus and more potassium than that contained in bananas (350mg%), regulating heart function and blood pressure (helped also by a very low sodium content). The fruit's phytochemical and antioxidant elements, which are particularly green in colour (from chlorophyll), also provide a protective shield against free radicals and the very unstable forms activated by oxygen and nitrogen, thus protecting the cell membranes.



Data: CREA-MIPAAF, Ministry of Agricultural, Food and Forestry Policies

AN ALLY OF THE INTESTINE

Consuming kiwi fruits helps regulate the intestinal function due to the soluble and insoluble fibres that they contain, including the small seeds. The fibre itself is not nourishing, but has a beneficial action on the intestinal flora: when hydrolysed and fermented by the flora in the colon it creates an ideal environment for the growth and activity of lactobacilli and bifidobacteria.

The actinidine enzyme, which gives kiwis their scientific name, also assists in the digestion of proteins. These effects on the body are confirmed

by academic and scientific studies among people who ate kiwis every day for about 30-40 days: 50% of these cases showed a significant improvement in constipation, reducing the use of laxatives.

Kiwi fruit is also of use in intestinal dysbiosis - i.e. when there is an imbalance in the intestinal microbiota (and of the microorganisms that colonise the intestine, commonly known as intestinal flora) - as well as in irritable bowel syndrome (IBS). Eating kiwis for 30 days appears to speed up transit times, improving the functioning of the digestive system and intestine and easing any symptoms felt. ^B

A FULL TANK OF VITAMINS

INGREDIENTS

200 ml coconut milk
2 slices of Brio "Dolcetto" pineapple, **1 kiwi**, **15g** fresh ginger to taste, **3** ice cubes, sugar/honey/maple syrup to sweeten, **1** teaspoon of chia seeds (optional, for decoration)



Ideal for all seasons, this smoothie gets its creaminess from the coconut milk (which can optionally be replaced by other vegetable milks or yogurt) and, if decorated with chia seeds, is a source of important proteins and omega-3 fatty acids. The ginger, pineapple and kiwi also stimulate digestion and will satisfy your taste buds with a pleasantly refreshing effect. It's very easy to make: the pineapple and kiwi flesh (both peeled) should be cut into small cubes, then adding the peeled and grated ginger. Place the ingredients in a blender (optionally adding 3 ice cubes) and blend them together. Sweeten to taste, adding a spoonful of chia seeds before serving.