Avocado

Production prospects for the counter-season market

Large volumes on the horizon

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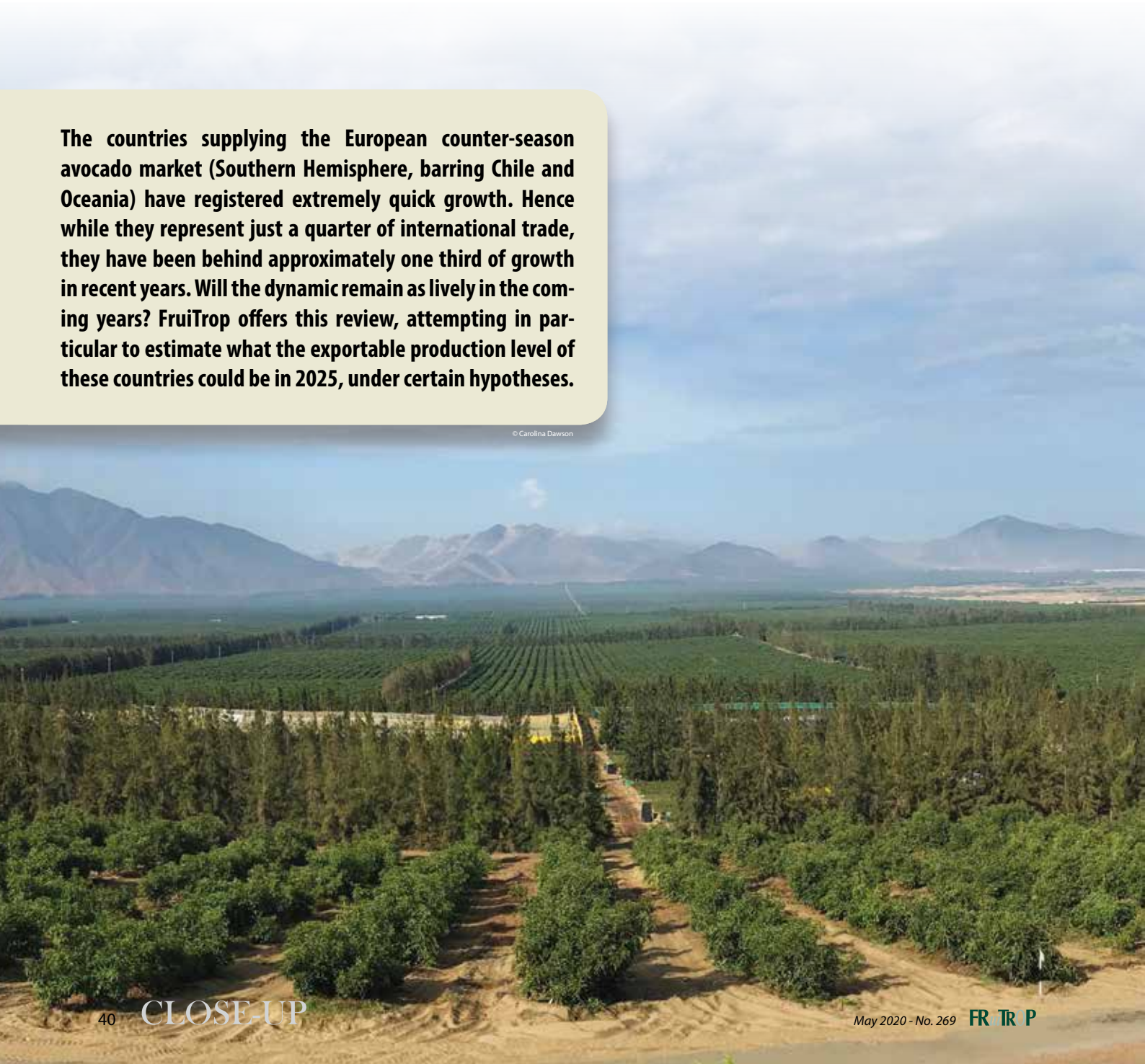
The countries supplying the European counter-season avocado market (Southern Hemisphere, barring Chile and Oceania) have registered extremely quick growth. Hence while they represent just a quarter of international trade, they have been behind approximately one third of growth in recent years. Will the dynamic remain as lively in the coming years? FruiTrop offers this review, attempting in particular to estimate what the exportable production level of these countries could be in 2025, under certain hypotheses.



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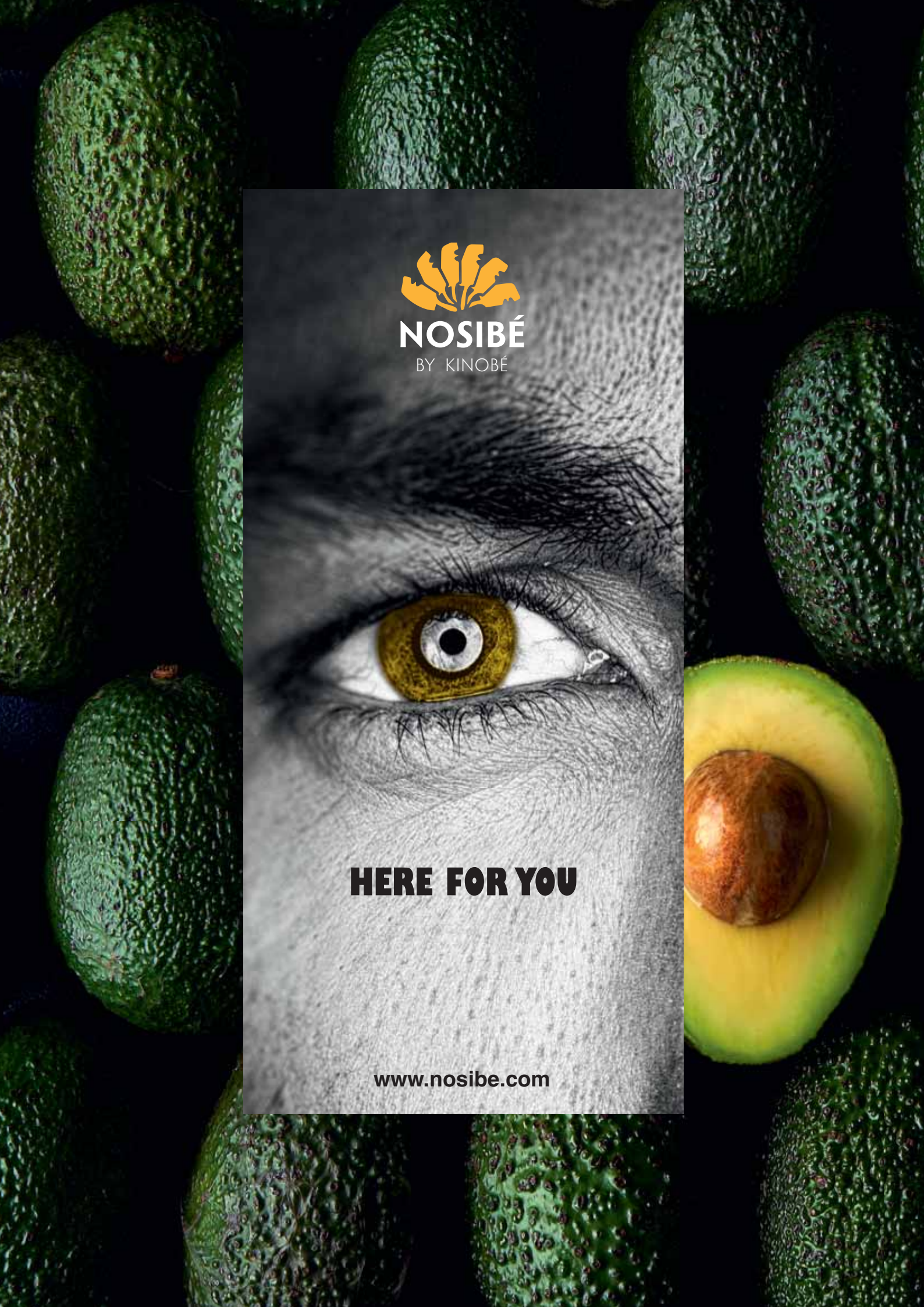
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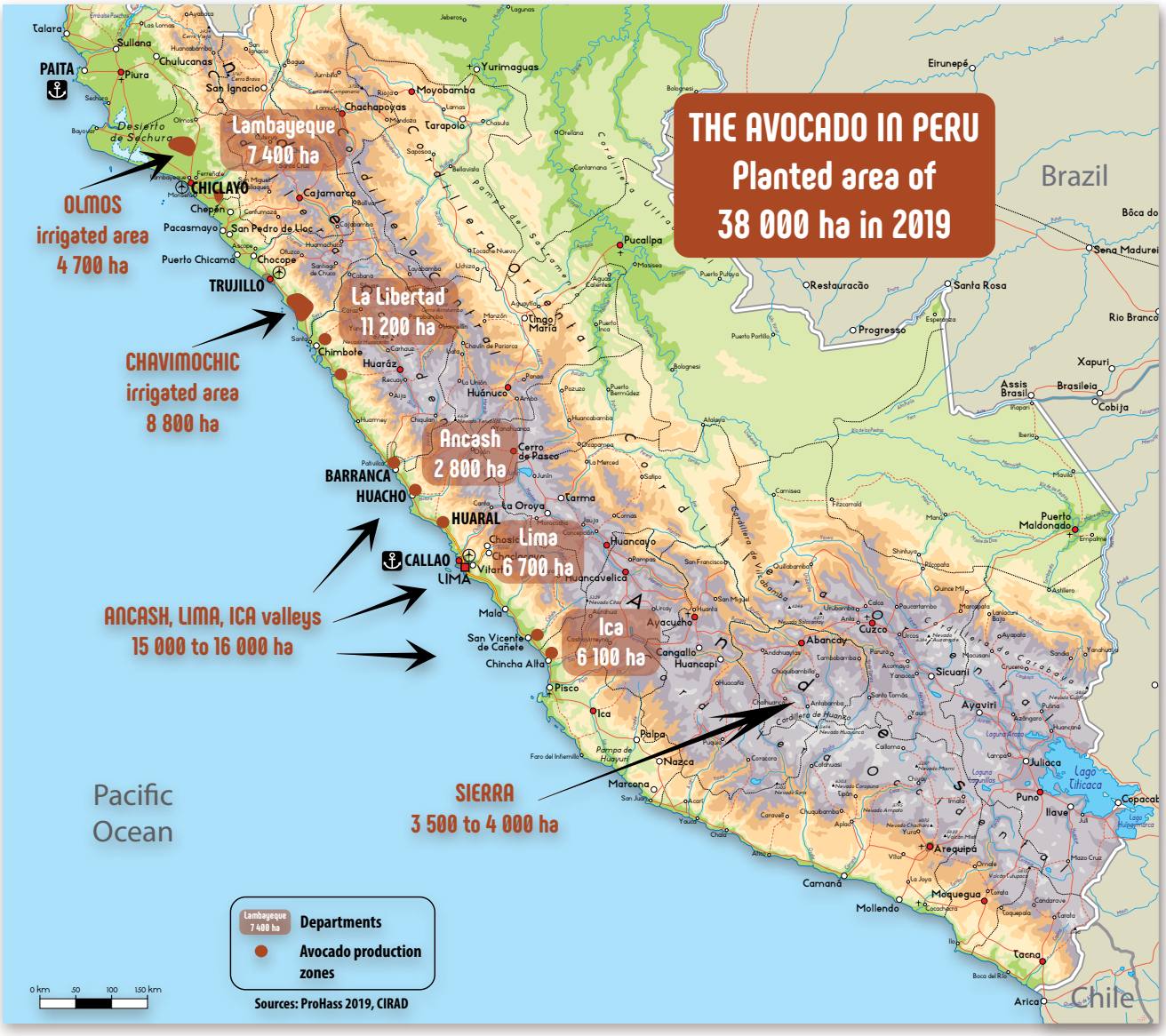
Peru

An immense youthful cultivation area

How could we not begin this overview of the planting dynamic with Peru, along with Mexico the most iconic origin of the world boom in Hass surface areas? This country's professionals have built up in record time the world's number two export avocado industry. The cultivation area covered an estimated 38 000 ha in late 2019, of which 9 000 ha not yet mature. These enormous areas of very young plantations, which are equivalent to the total cultivation area of a country like Israel, will enter production in three years' time. Some of these recent plantations were set up in traditional zones, with growth resuming in the Chavimochic irrigated area and in the valleys of the Department of Lima, especially over the last two years – approximately 2 000 ha planted. However, growers have focused more on regions with an offset calendar, sometimes late but above all early, such as the Olmos irrigated area in the north of the country, the Sierra zones where cropping conditions are nonetheless complex, and more recently, in the Nazca zone.

Avocado fever not dying out

Furthermore, growth in Peru is not done yet. In recent years it has actually tended to gather pace (3 000 ha/year on average 2017 and 2019). The planting programmes would seem to indicate that there will be no slackening of the dynamic in 2020, before a probable ebb in 2021 (1 500 ha/year – see **FruiTrop** 265). Hence the country should have a cultivation area of approximately 48 000 ha in 2025, of which 4 500 ha not yet in production.



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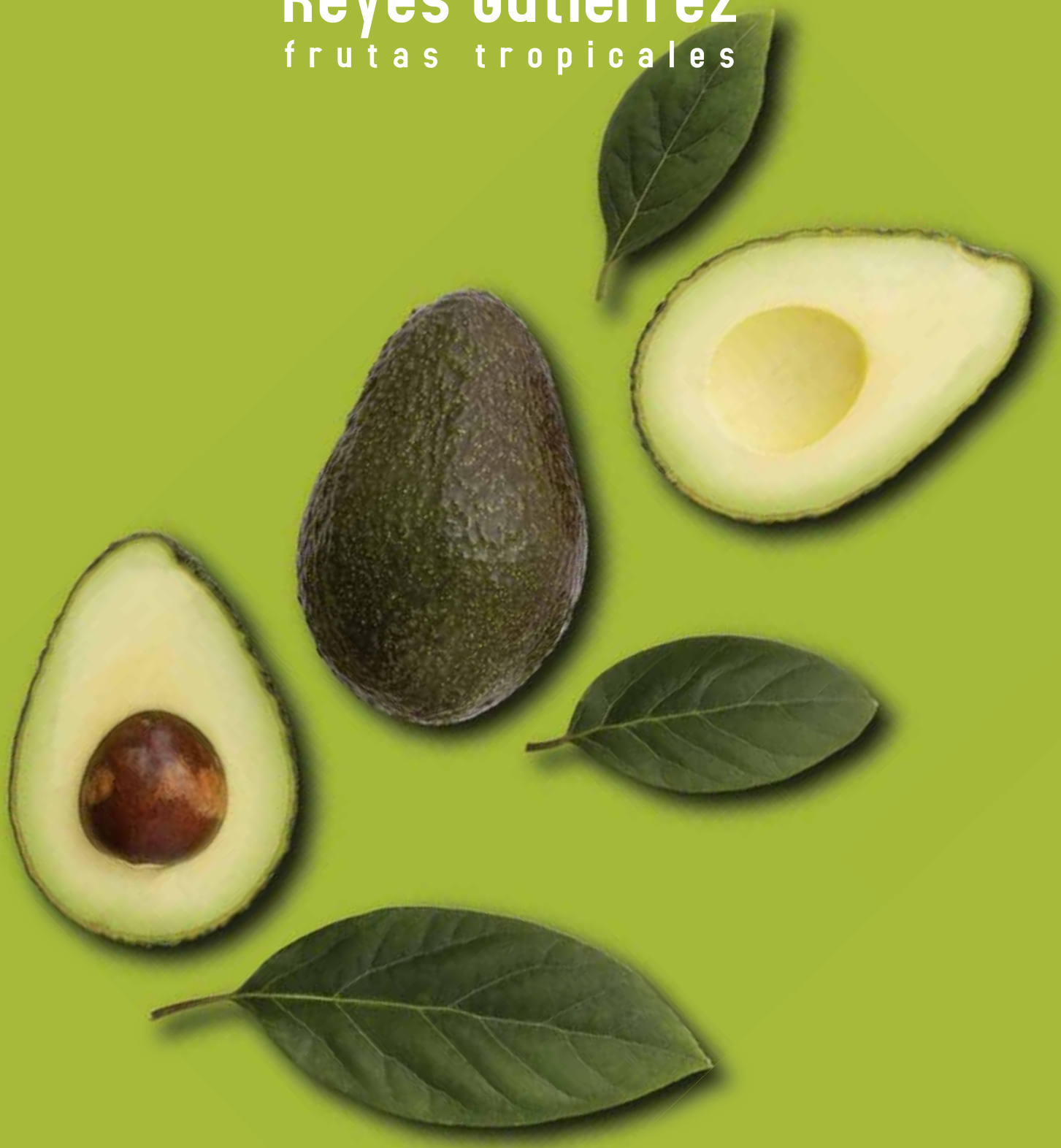

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South Africa

Boom since 2017-18

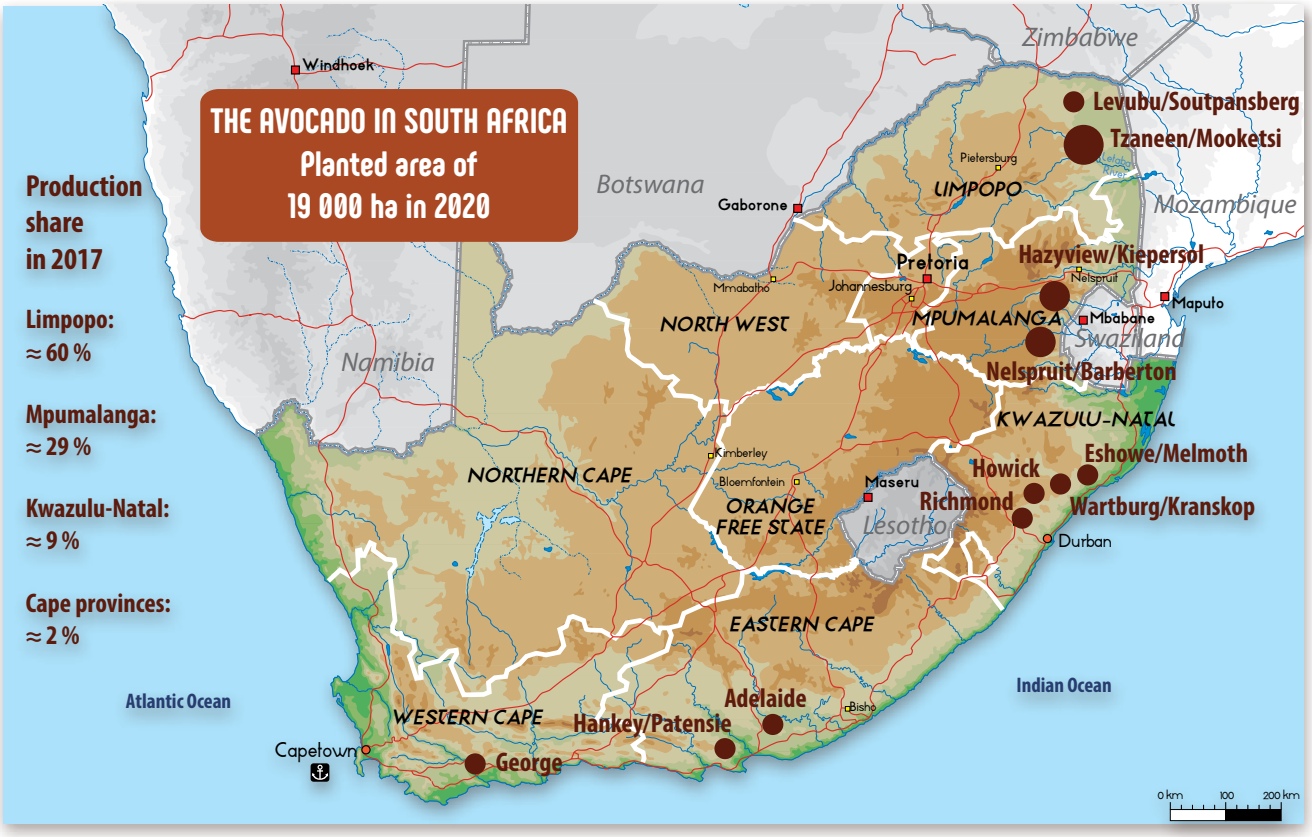
The historic number one counter-season market player, South Africa was left lagging behind for a while in terms of planting dynamic, to the point of being dethroned by Peru. This flat period is well and truly over. Planting has seen a genuine boom since 2017-18. According to the statistics of SANA (South African Nursery Association), sales of avocado plants went up gradually from 250 000-280 000 trees per year until 2016-17 to a predicted figure of more than a million plants in 2019-20, two-thirds of which Hass and Hass like. Hence if we subtract exports and replanting, the expansion rate of the cultivation area appears to have leapt up by approximately 500 to 1 500-2 000 ha per year. This dynamic is due to the big investments made in the nursery sector. The five main growers/exporters have all equipped themselves with their own plant production units, sometimes in partnership with the big names in this sector (e.g. Du Roi and Halls). Furthermore, new major players have also appeared, especially in zones where the plant supply was particularly limiting (e.g. Sutherland Seedling in Ixopo (Eastern Cape), which can also serve KwaZulu-Natal). So the times required to obtain high-quality plant stock have been considerably reduced, although they remain long (2 to 4 years for clonal plants).

Focus on Letaba and the late zones

These new plantations have been set up above all in the Letaba region (approximately 40 % of surface areas). The growing conditions vary greatly according to altitude, in this zone that is fairly well endowed with water, and situated within a radius of approximately 50 km around the town of Tzaneen. Hence the harvest calendar is very early around Mooketsi, situated at an altitude of 700 m, and conversely, later in the Magoebaskloof mountains toward Haenertsburg, situated at 1 400-1 500 m. Other significant developments have also occurred in zones able to extend the planting window, thanks to a cooler climate, such as Eastern and Western Cape, near Hankey and, more recently, near George and Adelaide, with a very late calendar. The local market is often the target for this type of projects.

Planting dynamic to hold up over the coming years

Growth is not done yet in South Africa either. Professionals are reckoning on the current planting rate holding up over the coming years (1 500-2 000 ha/year). Hence the South African cultivation area, covering 19 000 ha in 2020, will reach 27 000 to 28 000 ha in 2025, of which just over 5 000 ha not yet in production.



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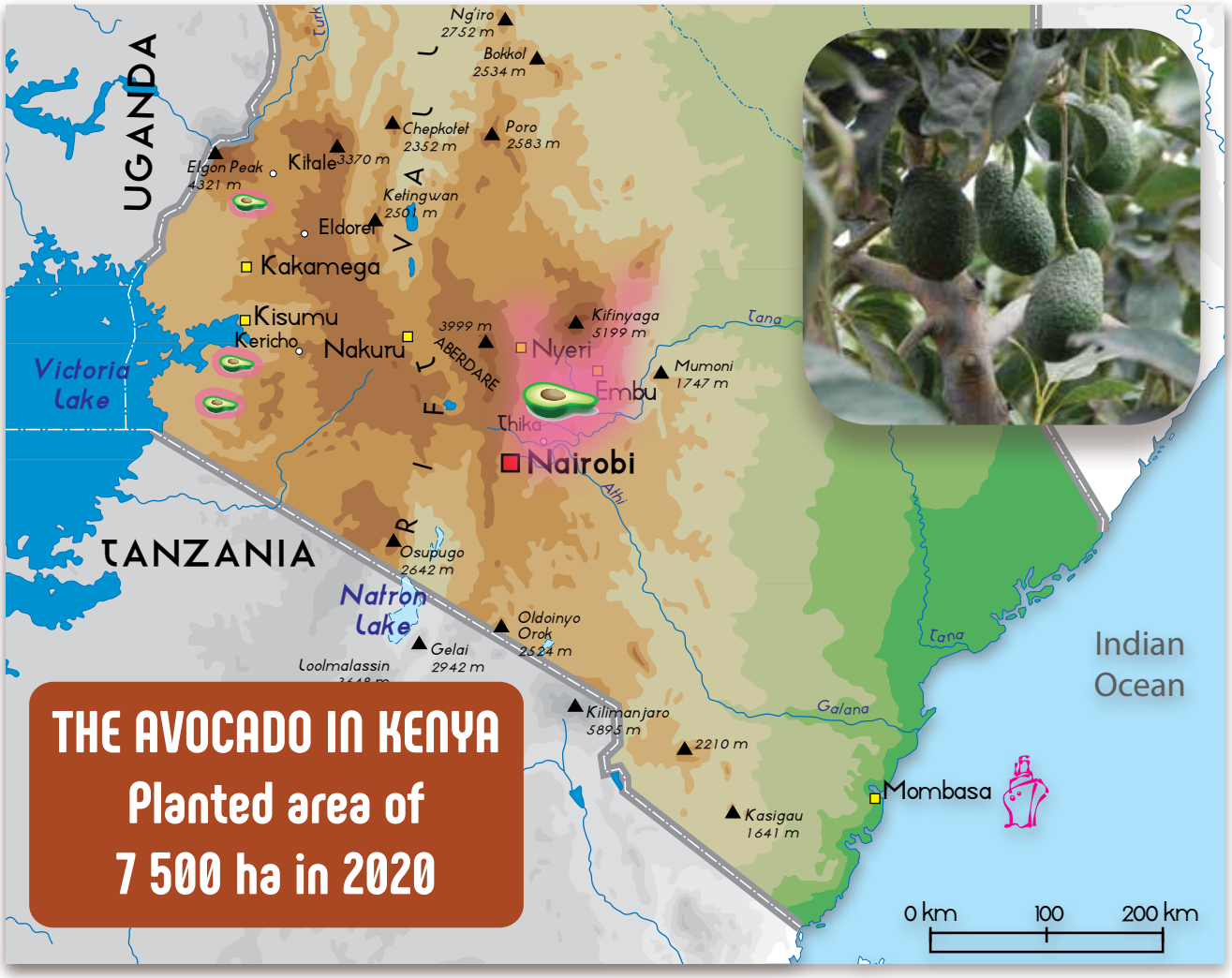
Kenya

A large-scale boom over the last 3-4 years

The dynamic for Kenyan exports, which have practically tripled over the past five years, shows that the country is not to be outdone in terms of progress. Nonetheless, it is hard to gain a precise idea of surface areas in cultivation, and even more so of their expansion, since the sector remains highly unstructured. The recent creation of the Kenyan Avocado Society will perhaps help provide a clearer vision in future. In this context we can only put forward estimates based on collated professional sources. The Hass cultivation area covers approximately 7 500 ha. Its growth can be evaluated thanks to the nursery production capacity. Five to six main facilities, distributing high-quality plant stock, are currently in place (one large, and 4 or 5 medium-sized), with their production evaluated at between 500 000 and 650 000 plants per year. If we assume a planting density of around 360 to 420 trees per hectare on average, planted surface areas should be somewhere between 1 300 and 1 600 ha/year. This theoretical calculation disregards the multiple small traditional nurseries, which sell very low-quality plant stock (without even a variety guarantee) to smallholders. Hence the cultivation area could at least double by 2025, and reach approximately 15 000 ha, of which 2 900 ha not in production.

Progress hand-in-hand with transformation of the production system

This growth in volumes is accompanied by a profound transformation of the Kenya production structure. Until recently, the basis of the industry relied mainly on a large-scale commercial plantation (Kakuzi, which covered approximately 800 ha in 2019), and on a very wide base of very small subsistence growers with a few avocado trees, supplying packers ("outgrower" system). The planting dynamic for the past 3 or 4 years has reshuffled the deck, and will contribute to reinforcing the industry in technical terms, since it is based primarily on commercial plantations. This generally means medium-sized orchards (30-100 ha), managed by family agricultural businesses or larger-scale groups, cultivating for example tea, flowers or other horticultural products, and seeking to diversify their activity. The plantations have a good technical level, almost systematically using irrigation. They should be able to obtain very high yields, under the very good cultivation conditions of the Kenyan plateaux. The emergence of these players will undoubtedly help bolster this origin's image, which was already on a positive trend in recent years. So there is an underlying movement toward better technical and quality management, which could also contribute to better supporting the country's lowest-scale smallholders.



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Tanzania

Three main production centres under development or construction

There is a Hass industry under construction in Tanzania too, with the country's high-altitude zones possessing both pedoclimatic and sanitary assets. As proof, exports, aimed practically exclusively at the EU-28, have reached a considerable figure of approximately 8 000 t in recent years. There are three distinct main production centres, each covering between 300 and 500 ha. They all comprise commercial plantations, with a surface area ranging from approximately 40 to 200 ha. These three centres, covering a total estimated area of approximately 1 200 ha, are developing. There are some very small orchards in the hands of subsistence smallholders present in each of these zones, with variable technical management. So the industry is also playing an important socio-economic role. The centre situated in the north of the country, which currently accounts for the majority of exports, has approximately 400 ha of commercial plantations and 150 ha of very small plantations. The historic Mount Rungwe region is regaining some vitality, after a trough period. It has approximately 300 ha of commercial orchards, and some very large areas in the hands of very small-scale outgrowers (estimated at 2 000 ha). Finally, a new production zone has been set up in recent years in the Iringa region, in the centre of the country. It has approximately 500 ha of commercial plantations, and approximately 500 ha of very small orchards. This region will only really enter production toward 2022, with most of the orchards very young. These three zones are each equipped with a packing station: Africado in the north, Rungwe Avocado Company in the south and Kibidula, which has just opened its doors in the centre. We should also mention the significant areas of very small family plantations in the Njombe region (in the south), which are also involved in exports. The Tanzanian Hass cultivation area should expand by at least 400 to 500 ha in 2021, given the ongoing projects. The expansion could gather pace significantly, since at least two large-scale projects (approximately 300 ha) are under study in the north, and in the Iringa region. Their implementation will be dependent on lifting certain obstacles, especially in terms of land.

Brazil

A boom in Minas Gerais

Even until recently, Brazil was known on the international avocado scene mainly for its tropical varieties (West Indian race fruits). This country's professionals have proven in recent years that they too could be credible and large-scale players in Hass. As proof, exports, now for the vast majority comprising this variety, exceeded 10 000 t in 2019. Growth in production should gather pace considerably over the coming years. On the one hand, the historic production centre in the north-west of the São Paulo region now covers approximately 1 300 to 1 400 ha, and is continuing to make gradual progress. On the other hand, the planting dynamic has very considerably gathered pace in the more recently developed region of Minas Gerais, whose cooler climate is well-suited to Hass, and where land is less expensive. According to our estimates, Hass surface areas are now greater than those present in the São Paulo zone, at around 1 900 ha in early 2020. They will double by the end of 2021, with planting operations continuing under a massive ongoing project. Hence the Brazilian Hass cultivation area, currently covering 3 200 to 3 300 ha, should have at least 5 500 ha by late 2021, with its centre of gravity shifting toward the south of the State of Minas Gerais. Thereafter, expansion is hard to identify. It should be at least around 300 ha per year, though other large-scale projects could emerge by this date. Furthermore, there are also tests in progress in other regions of the country, such as the cooler zone in northern Rio Grande do Sul or in the State of Bahia, at altitude and under irrigation.

Projection under hypotheses, to provide a solid trend

These hypotheses relating to evolution of the surface areas of the main counter-season avocado market players help us to lay the foundations for an evaluation of what the export availability could be in five years' time. True, some of data is very rough, especially for countries which have no survey information available. However, the bases that we have, thanks to contacts with representative professionals, seem sufficiently solid to propose a projection, the ambition of which is to produce a solid trend. Furthermore, production is evolving very quickly, and we believe it is vital to have access to an illuminating information base, especially given the very high level of investment in arboriculture.

Simplifying hypotheses

To facilitate the calculation, we have opted for a common hypothesis for all origins entering production with young orchards from their third production cycle (tree age between 2 and 3 years). Conversely, we have adopted different maturity ages for different producer countries, ranging from the fifth production cycle for Peru (tree age 4 or 5 years) to the seventh production cycle for South Africa, Kenya and Tanzania (tree age 6 or 7 years). Again to simplify the calculation, we assumed that the average yield of the productive trees not yet at maturity was equivalent to 50 % of the yield of adult trees. This estimate is the fruit of smoothing the production data for certain expanding orchards in South Africa and Peru, over the period from their first production cycle to reaching maturity. The assumed yields vary between the origins, according to the information supplied by professionals (export yields, factoring in a level of sorting rejects varying between the origins). The yield level selected for 2025 adopts for certain countries a productivity increase due to improvement in cropping practices and plant stock. The detailed hypotheses and the results are set out in the tables below.

Avocado – Hypotheses used as projection basis

Country	Entry into production	Maturity	Yield during expansion period	Annual expansion of cultivation area
Peru	3rd production cycle	5 years	50 % of mature yield (smoothed over the period)	3 000 ha in 2020, then 1 500 ha
South Africa		7 years		1 750 ha from 2020
Brazil		6 years		+ 2 200 to 2 300 ha by 2021, then 300 ha
Kenya*		7 years		1 300 to 1 600 ha from 2020
Tanzania*		7 years		450 ha in 2020, then 300 ha

* South African hypothesis adopted | source: CIRAD-FruiTrop

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Cultivation area to expand by 30 000 ha by 2025

According to our hypotheses, the combined cultivation areas of the countries in question could reach just over 100 000 ha in 2025, i.e. an increase of approximately 30 000 ha from 2020. Approximately 70 000 ha would be fully mature, 20 000 ha with production on the rise, and 12 000 ha not yet in production. Production of high-quality export fruit from these orchards (whether actually aimed at the local market or at the export market) should be slightly in excess of 900 000 t. Growth, calculated in relation to the same time frame in 2020, should be approximately 345 000 t, a figure corresponding to an increase of approximately 70 000 t/year over the period 2020-2025. Comparison with the previous period is not a simple matter, because of the heavy alternate bearing swing in certain campaigns. However, by smoothing the data for the seasons in question, we can conclude that the average market growth remained between 33 000 and 45 000 t between 2014 and 2019.

World production evolving more rapidly than current demand level

This basic study reveals that exportable production will evolve at a considerably higher tempo than current demand on the export and local markets. There is a sufficiently great differential that we must be outside the error margin, wide though that probably is. Furthermore, the chosen hypotheses mean that additional exportable production was calculated as minimum levels (conservative growth rate for Tanzanian and Brazilian cultivation areas, without factoring in big projects currently under study). In addition, certain countries which are minor at present have not been incorporated due to lack of sufficiently reliable data (Mozambique, with a current estimate of approximately 600 ha, Ethiopia, Angola, etc.). Finally, cultivation areas for other origins, partially occupying the counter-season, are also expanding (especially Jalisco). This additional production is not included in the projection.


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Better harnessing the market's growth margins and the product's assets

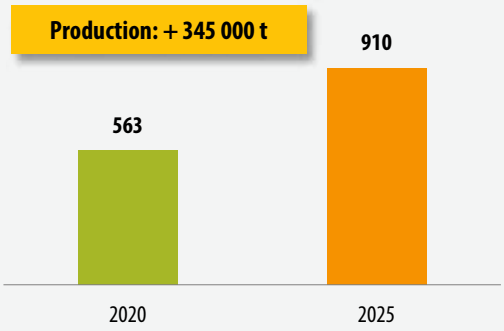
These conclusions, without being alarming, show that it is now very important to invest much more in the downstream segment, in avocado promotion, in order to be able to see such a high rate of increase in world production capacity as today. True, the return on this type of investment is not direct, but it is nonetheless guaranteed, as is shown by the US market, where avocado imports have grown at an average rate of nearly 15 % per year for the past fifteen years, thanks to the actions of the HAB. The avocado has two major assets. Unlike other markets, the consumption growth margins are still very large: still untapped potential on historic markets, Asia taking off, regional or local markets still often completely untapped. Furthermore, the product has major attraction potential, thanks in particular to its remarkable health assets, which are starting to be increasingly well known thanks to the work undertaken, in particular once again by the HAB, a wonderful tool for conducting powerful and persuasive communication campaigns, to which few fruits have access. It is high time to harness these assets more fully, in particular by reinforcing and breathing new life into the WAO ■

Counter-season avocado – 2025 projection for production in European Union supplier countries

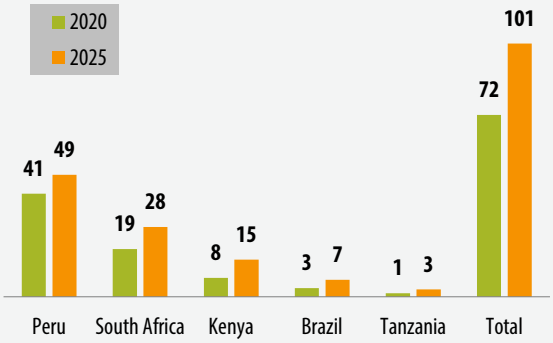
Country	Cultivation area size, end of 2020	Cultivation area size, end of 2025 (ha)				Average yield (t/ha)	Production in 2025 (t)	Production in 2020 (2018-19 average) (t)	Notes
		Total surface areas	mature	in production, not mature	young, non-productive				
Peru	41 000	48 500	41 000	3 000	4 500	12.5	532 000	336 000	
South Africa	19 000	27 700	17 200	7 000	3 500	9.5	208 900	145 000	Local + industry: 75 000 t
Kenya	7 500	14 750	6 050	5 800	2 900	10.0	98 200	65 000	
Brazil	3 400	6 700	3 250	2 850	600	10.0	51 025	9 000	
Tanzania	1 350	2 900	1 350	950	600	10.0	19 675	8 000	
Total	**72 250**	**100 550**	**68 850**	**19 600**	**12 100**		**909 800**	**563 000**	

Source: CIRAD-FruiTrop

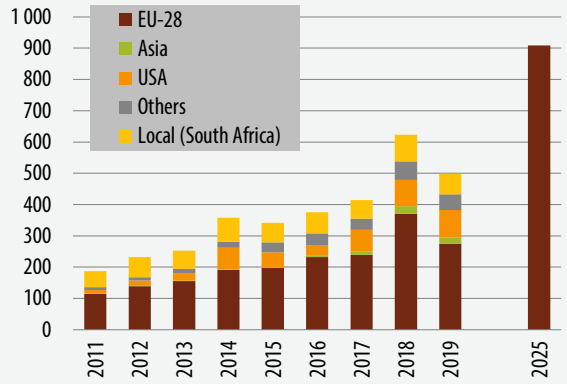
Avocado - 2020-2025 production projection
(in 000 tonnes | source: CIRAD-FruiTrop)



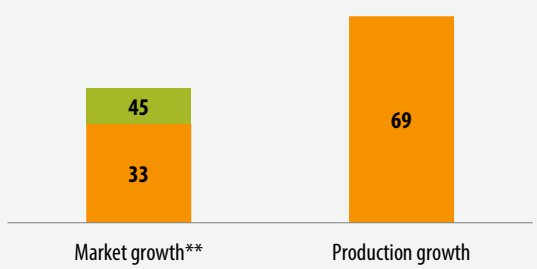
Avocado - 2020-2025 evolution of planted areas
(in 000 hectares | sources: CIRAD-FruiTrop, professionals)



Counter-season avocado - World market
(in 000 tonnes | source: Customs)



Avocado - 2014-2019 market annual growth* and expected production annual growth
* exports + local/industry South Africa | ** 2014-2019 smoothed
(in 000 tonnes | source: CIRAD-FruiTrop)



Avocado - Market growth
(in 000 tonnes | sources: CIRAD, Customs, professionals)