



IOC

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ALBANIAN MINISTER OF AGRICULTURE VISITS THE IOC

Discussions between the two parties focused on exploring ways and means to revitalise Albania's participation in IOC activities and to take advantage of the IOC's expertise to develop the Albanian olive sector.



Frida Krifca, Minister of Agriculture and Rural Development of Albania paid a courtesy visit to the International Olive Council on 6 October 2021. She was accompanied by H.E. **Gazmend Barbulushi**, Ambassador of Albania in Madrid. They were welcomed by the Executive Director, Mr. **Abdellatif Ghedira**, and his two deputies, Mr. **Jaime Lillo** and Mr. Mustafa Sepetçi as well as by the heads of the External Relations, Mr. **Mounir Fourati**, and Observatory Departments Mr. Michele Bungaro.

Discussions between the two parties focused on exploring ways and means to revitalise Albania's participation in IOC activities and to take advantage of the IOC's expertise to develop the Albanian olive sector.



With this in mind, Deputy Executive Director Jaime Lillo gave a brief presentation on the IOC's activities and the tools it can make available to member countries.

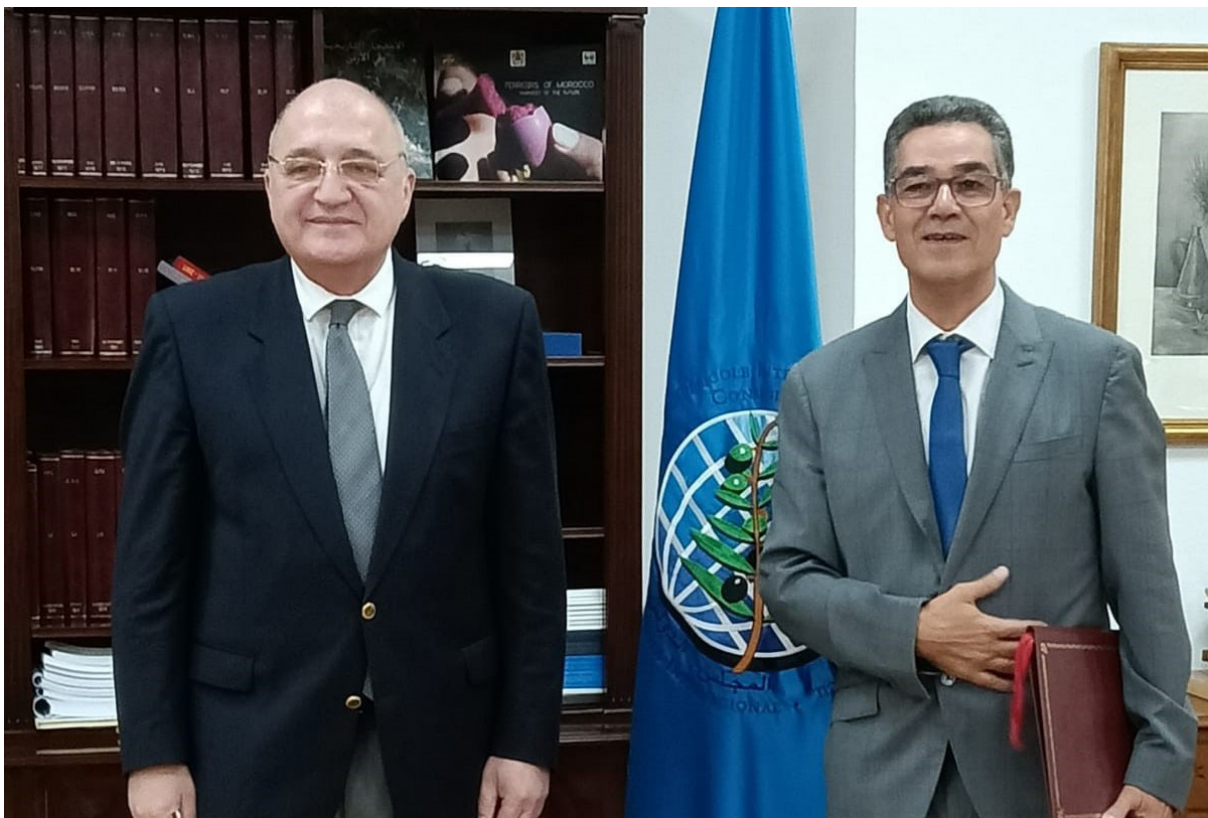
The Minister expressed her interest in all the means made available to Members, while regretting that these support mechanisms were not widely known at the various levels of her country's olive sector. After a presentation of the Observatory by Deputy

Executive Director Mustafá Sepetçi, it was decided to plan a virtual meeting between the stakeholders of the Albanian olive sector and the heads of the IOC operational units to exchange information and establish a roadmap for technical assistance to the Albanian olive oil sector. The visit ended with an exchange of gifts and souvenir photos.



AMBASSADOR OF UZBEKISTAN VISITS IOC HEADQUARTERS

Discussions between the two parties focused on exploring ways and means to revitalise Albania's participation in IOC activities and to take advantage of the IOC's expertise to develop the Albanian olive sector.



H.E. Jakhongir Ganiev, Ambassador of the Republic of Uzbekistan, which became the eighteenth Member of the International Olive Council on 31 August 2021, visited the Organisation's headquarters on 30 September 2021, accompanied by its first secretary, where he was welcomed by the Executive Director Mr Abdelatif Ghedira, and the Head of the External Relations Department, Mr Mounir Fourati.

His Excellency wished to visit the headquarters and discuss arrangements for the ceremony to raise the Uzbek flag on the IOC forecourt. The Executive Director congratulated him on joining the olive family and assured him of the Executive Secretariat's readiness to celebrate this accession in the appropriate manner.



The Chair of the Council, Mr George Svanidze, joined the meeting virtually from Tbilisi and made a point of personally congratulating the Uzbek representative on his country's membership of the IOC.

At the end of the visit, it was agreed to dedicate 14 December 2021 to the flag-raising event, in the presence of the Chair of the Council, the board of directors of the Organisation and its staff, as well as the diplomatic corps of the member countries and the authorities of the Uzbek and Spanish governments. So, see you on 14 December 2021 and welcome to the Republic of Uzbekistan!



EXPOLIVA: JAÉN REWARDS THE IOC





JAEN (ANDALUSIA) / EXECUTIVE DIRECTOR ABDELLATIF GHEDIRA, PICTURED GREETING HIS MAJESTY FELIPE VI KING OF SPAIN WHO INAUGURATED THE 2021 EDITION OF EXPOLIVA, COLLECTED THE COVETED AWARD

A panel of international experts has awarded the International Olive Council the 1st International Award City of Jaén for promoting the culture of olive growing in the world. The initiative, promoted by the municipality of Jaen, took place on the opening day of Expoliva 2021.



The aim of this award is to disseminate, promote and encourage knowledge on all aspects of olive growing and olive oil technology in its broadest sense across different sectors. These include medicine, chemistry, agronomy, economics, music, gastronomy and art, as promoted by national and international institutions, organisations and personalities, both public and private.

Receiving the award, Executive Director Abdellatif Ghedira, accompanied by Deputy Executive Director, Jaime Lillo, and Head of External Relations, Mounir Fourati, said "I was honoured to receive the award for the worldwide promotion of olive oil on the side-lines of Expoliva21. My warmest thanks and respect to all those who have contributed to this international recognition, of which I particularly mention the Council of Members, the Advisory Committee, the officials of the Executive Secretariat as well as the women's networks of olive oil".

Exoliva 2021 was inaugurated by His Majesty King Felipe VI. The exhibition is now in its 20th edition as an international trade fair for olive oil and related industries. The King, in a gesture demonstrating his commitment and support for the Andalusian olive oil sector, greeted the authorities on his arrival and visited the different pavilions of the fair.



IOC GRANTS

2ND CALL FOR PROPOSALS FOR THE AWARD OF GRANTS FOR PROMOTIONAL PROGRAMMES IN IOC MEMBER COUNTRIES

MADRID / Within the framework of the promotion activities approved by the IOC for 2021, the Executive Secretariat (ES) intends to award grants to finance national programmes to promote local consumption of olive oil and table olives in producer member countries. Grants will be awarded for events and actions implemented from 6 to 31 December, 2021. The objective of the grants is, inter alia, to build up a market culture in member countries that wish to emphasise the quality of local products and encourage cooperation amongst all IOC member countries. Proposed action and events should be of clear-cut promotional worth, in line with the objectives laid out in the International Agreement on Olive Oil and Table Olives 2015.

Further information are available in English and French in the follow links:



[2nd CALL FOR PROPOSALS FOR THE AWARD OF GRANTS FOR PROMOTIONAL PROGRAMMES IN IOC MEMBER COUNTRIES.2021.](#)





WORLD OLIVE DAY 2021

TBILISI (GEORGIA) / The IOC celebrates World Olive Day on 26 November every year. To promote this important event, the Executive Secretariat works with and provides support for delegations from member countries, representatives from the sector, local authorities, observatories and members of the diplomatic corps from countries that have signed the International Agreement on Olive Oil and Table Olives 2015. The program of 2021 event in Tbilisi is attached below. Enjoy



Invitation from the Georgian government

International Seminar
on the occasion of the World Olive Day
Main Topic: Trends in the International Market of Olive Oil

Tbilisi, 26 November 2021, 11:30 am (UTC+4)
Videoconference available

11:30 – Opening of the seminar

- Official welcomespeech Georgian Government
- **Mr. Abdellatif Ghedira**, Executive Director, International Olive Council
- **Mr. GeorgeSvanidze**, Chair of the IOC, Georgia

12:30 – International Market of Olive Oil

- **Mr. Jaime Lillo**, Deputy Executive Director, International Olive Council

12:50– Current situation and trends in the European Union Market

- **Mr. Gabriel Vigil**, Responsible for the olive sector in the European Commission

13:10– Current situation and trends in the US Market

- **Mr. Joseph R.Profacci**, Executive Director, North American Olive Oil Association

13:30 - BREAK

14:30 – The worldwide olive oil consumer profile

- **Mr. Juan Vilar**, Co-director of the Master's Degree in Administration and Management of Olive Companies.

15:20 – Future trends: Plant Forward Kitchen

- Presented by **Mr. Santi Mas** on behalf of **Mr. Greg Drescher**, Vice-President of Strategic Initiatives and Industry Leadership, Culinary Institute of America (USA)

15:40 – Georgia Presentations on Olive Oil

- **Mr. Zviad Bobokashvili** Scientific-Research Centre of Agriculture - Head of department of fruit crop research

16:20 – Closure of the seminar



Simultaneous translation available to: English French Georgian

For further information, please write an e-mail to:
ioc@internationalolivecouncil.org

SUDAN ON THE DOORSTEP OF THE IOC

The Chargé d'Affaires *ad interim* of the Sudanese Embassy, **Husam Eldeen Ettayeb**, was received at his request by the Executive Director of the IOC, **Abdellatif Ghedira**, in the presence of the Head of the External Relations Department of the Organisation. Mr Ettayeb carried an official letter from his Minister of Agriculture expressing the willingness of the Sudanese government to join the IOC. The





Executive Director welcomed the news and thanked the Sudanese Government for its interest in the IOC and its mission. He said that he would be pleased to see Sudan raise its flag on the Organisation's forecourt.

He also informed his guest of the steps necessary to make this accession a reality and to bring the Sudanese proposal to the attention of the Council of Members. To support Sudan, the Executive Director proposed holding a videoconference meeting to present the IOC's activities in detail and to learn about the Sudanese olive sector and its expectations. The Sudanese chargé d'affaires welcomed the proposal and agreed to forward it to his authorities.

A bilateral webinar to deepen the themes and topics of future collaboration between Sudan and the International Olive Oil Council was held last October 18 in connection between the headquarters of the IOOC in Madrid and the capital Khartoum in Sudan. After the introductory greetings of the Executive Director Ghedira, the work continued with the intervention of the Deputy Executive Director Jaime Lillo who explained in detail the operational activities of the IOC and the advantages for Sudan in the event of joining the International Agreement on Olive Oil and Table Olives. By the deputy executive director Mustafa' Sepetci also.



The meeting was attended by the heads of the standardisation and research unit, Mercedes Fernandez, the statistics and promotion unit, Ender Gunduz and the heads of the technical, environment and training department, Catarina Bairrao Balula, the external relations unit, Mounir Fourati, the Observatory, Michele Bungaro and the management assistant, Andoni Olano. It was a first meeting that will precede Sudan's participation as an observer in the work of the next IOC Council in Georgia at the end of November. In the meantime, a working group will look into aspects of Sudan's accession to the above-mentioned international agreement.



BILATERAL BETWEEN THE IOC AND ICQRF ITALY

MADRID / Strengthening international collaboration for the continuous training of expert teams in the field of olive oil chemistry, organoleptic analysis and information dissemination.



These were the topics discussed at a bilateral meeting between the Department of the Central Inspectorate for the protection of quality and repression of fraud in food products (ICQRF) of the Italian Ministry of Agriculture and the Executive Secretariat of the IOC in Madrid.

The Italian delegation was led by Felice Assenza, the Head of Department, accompanied by Emilio Gatto, the Director General, and senior managers and officials of the ICQRF. They were welcomed at headquarters by Abdellatif Ghedira, the Executive Director, and Jaime Lillo, his Deputy Executive Director. They were joined by Mercedes Fernandez, the Head of the Standardisation and Research Unit; Mounir Fourati, the Head of the External Relations Department; Eduardo Muela, the Head of the Legal Affairs Department; and Michele Bungaro, the Head of the Observatory Department. The meeting was also attended by Nicola Carbone, Commercial Attaché of the Italian Embassy in Madrid and Andoni Olano, Assistant to the Executive Director of the IOC.



The main purpose of the meeting was to identify and share objectives for applying common anti-fraud rules in the olive oil sector. 'Leveraging,' said Department Head Assenza, 'product traceability and the verification system, which for olive oil account for more than 50% of the checks carried out in Italy.'



Ghedira thanked the ICQRF delegation, adding that 'the issues addressed in the meeting are outlined in the first article of the International Agreement on Olive Oil and Table Olives for objectives regarding standardisation and research'.

Stressing the depth and quality of the content addressed, Ghedira also said that he appreciated this initiative from Mr Felice Assenza and the Executive Secretariat would support all actions to enhance olive oil quality and facilitate international trade.

He announced that he would share the proposal with the members concerned to discuss axes for future cooperation to share the methods and tools for fraud detection and product traceability with all members. The IOC is the world's only international and intergovernmental organisation in the olive oil and table olive sector. It was created in Madrid, Spain, in 1959, under the auspices of the United Nations



The ICQRF of the Italian Ministry of Agriculture, Food and Forestry Policies, with its headquarters in Rome, 19 regional inspection offices, six accredited chemical laboratories and 720 inspectors, has a key presence throughout the country.

The Italian delegation visiting the IOC included Paolo Tolomei, Head of Unit PREF 3; Valentina Di Bona, Head of Unit VICO 4; Marina Fiori, lawyer and senior officer; Fabrizio Gualtieri, lawyer and senior officer; Barbara Catizzone, senior officer; and Domenico Vona, senior officer.

BOOKLET OF MEDITERRANEAN RECIPES

Collaboration between the International Olive Council and the Culinary Institute of America continues to bear fruit. For our new page specifically created to help you learn more about and support the culture of extra virgin olive oil in cooking, click "Culinary" on the top of the IOC homepage (<https://www.internationaloliveoil.org/#>).





The Mediterranean
Plant-Forward Kitchen



Olive Oil-Based Recipes from the
Mediterranean Kitchen

Below is 'Olive Oil-Based Recipes from the Mediterranean Kitchen'. Explore our selection of plant-forward recipes, including recipes for olive oil-based sauces, small plates, entrees, and desserts. You can download a booklet of Mediterranean plant-forward recipes here.

<https://www.plantforwardkitchen.org/s/MediterraneanRecipeBooklet.pdf>

LATEST OHIS NEWSLETTER

THIS WEEK'S ARTICLES SUMMARIZE OLIVE OILS' MOST PROMINENT HEALTHFUL BENEFITS. FROM NEUROPSYCHIATRIC TO CARDIOVASCULAR HEALTH, ITS BENEFITS ARE FOUND ACROSS MULTIPLE AGE GROUPS AND IN PARTICULAR FOR WOMEN'S HEALTH.

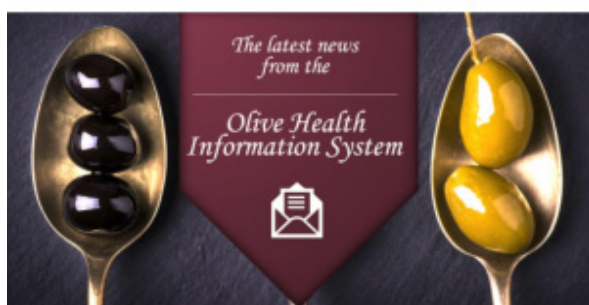


INTERNATIONAL
OLIVE
COUNCIL



Here is the latest news about extra virgin olive oil and health from the portal created specially by the International Olive Council and the University of Navarra. We hope you enjoy reading it and stay connected to our website:

<https://meddietolivehealth.com/news-by-topic/>



Latest health newsletter:

https://meddietolivehealth.com/?mailpoet_router&endpoint=view_in_browser&action=view&data=WzlwOCwiODY0OWJmNjFIZGZjliwwLDAsMCwxXQ

For further information:

<https://meddietolivehealth.com>



THE IOC AND WOMEN IN OLIVE OIL

FROM 20 YEARS OF PANDOLEA IN ITALY, TO WOMEN IN OLIVE OIL IN

JAEN / On the invitation of the IOC, Eng. Nehaya Al-Muhaisen, the Chair of the Arab and Jordanian Olive Oil Women's Network; Ms Sawsan Mrad, the Chair of the Tunisian Olive Oil Women's Network; and Dr Imene Trabelsi, vice-chair of the international women in olive oil network, attended Expoliva 2021 to present the association for women in olive oil for the first time.

An olive oil trade fair in Jaen, the world hub of olives and olive oil, they took part in the various events and in the meeting of the Advisory Committee. They were joined by the director of the exhibition, the Ambassador of Tunisia in Spain and many official figures, stakeholders, producers and representatives from Committee Member States.



They discussed the establishment of the Arab women's network for olive oil, its achievements and the close collaboration it enjoyed with Pandolea, a veteran women's olive oil association based in Italy. Together, they are striving to bolster women's involvement in the olive sector and raise awareness of the importance of expanding consumption and improving quality. The representatives of the

women's networks were honoured at the exhibition, in the presence of the Executive Director of the IOC, Abdellatif Ghedira.



TECHNICAL COOPERATION

MADRID / 4-Four PhD theses, funded by IOC scholarships, have been developed from 2016 to 2019 as part of the technical cooperation and training programme, included in the olive growing, olive oil technology and environment activities of the International Olive Council.

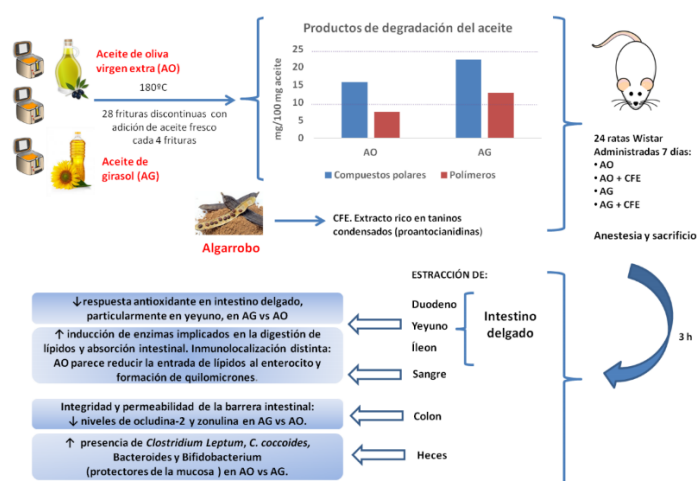
Some of these theses have only been discussed recently, being the conclusions obtained presented in these 4 short articles below.



IOC-UCM PROJECT: THE INFLUENCE OF FRYING OILS ON THE GASTROINTESTINAL SYSTEM

Experimental scheme and summary of the most relevant results: AO – olive oil; AG – sunflower oil; CFE – carob extract rich in proanthocyanidins.

MADRID / In 2019, over a period of nine months, Nutrition and Cardiovascular Health (AFUSAN), the research team of the Complutense University of Madrid (UCM), carried out a study for the IOC entitled: “Comparative effects of extra virgin olive oil and sunflower oil used in frying, with or without condensed tannins, on the antioxidant status, intestinal barrier integrity and colonic microbiota of Wistar rats”.



In the trials, hake fillets and sticks were fried intermittently 28 times while adding oil. When extra virgin olive oil was added, alteration came to 15.6 mg/100 mg of oil in polar compounds and 7.3 mg/100 mg of polymeric compounds; with sunflower oil, alteration came to 22.0 mg/100 mg and 12.8 mg/100 mg of polar compounds and polymers, respectively. (Figure attached)

After administering these oils repeatedly for seven days, either with or without condensed carob tannins (CFE), the most important results obtained were as follows:

The antioxidant response in the small intestine was lower in the rats that ingested sunflower oil than in those that consumed olive oil. This implies that these rats were exposed to more oxidative stress and possible tissue damage than the rats in the olive oil group. Adding CFE was also found to help alleviate oxidative stress.

Both oils gave rise to enzymes involved in lipid digestion and intestinal absorption. But the immunolocalization of these enzymes suggests that the processes are very different in the different areas of the small intestine (duodenum, jejunum and ileum) for olive oil and sunflower oil. These changes seem to be delayed



when digesting olive oil, which would mean less cholesterol goes into the enterocyte and less chylomicrons are formed (especially when adding EFC).

Regarding the integrity and permeability of the intestinal barrier, the composition of the intestinal microbiota and the degree of dysbiosis, the results showed that the two oils, fried the same number of times, brought about very different changes in the colon. The effects of the sunflower oil could be defined as more harmful than those of the olive oil, in particular by reduced amounts of two proteins (occludin-2 and zonulin).

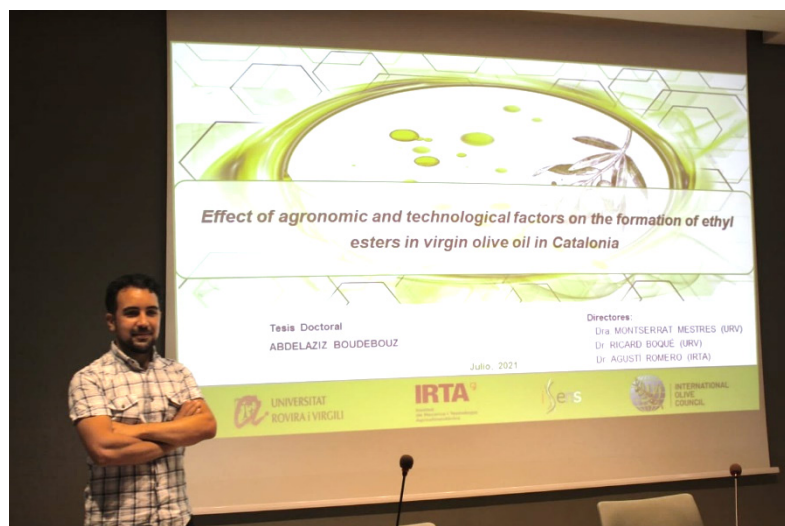
As for the microbiota, it should be noted that the most mucosa-protective microorganisms (*Clostridium leptum*, *Clostridium coccoides*, *Bacteroides* and *Bifidobacterium*), which produce lots of butyric acid, tended to be more abundant in the olive oil than sunflower oil.

As a general conclusion, the data suggest that regularly eating hake fillets and sticks fried in extra virgin olive oil ensures a lower intake of altered and oxidative compounds that affect the oxidative status of the gut and many lipid transport processes, as well as a higher integrity of the intestinal barrier, resulting in better gut health and a lower future risk of degenerative diseases (e.g. colorectal cancer) compared to those fried in sunflower oil.

For more information about AFUSAN: <http://www.campusmoncloa.es/afusan/>

PHD ABDELAZIZ BOUDEBOUZ THESIS

On 29 July 2021, the newly Dr Abdelaziz Boudebouz presented his PhD thesis entitled: "Effect of agronomic and technological factors on the formation of ethyl esters in virgin olive oil in Catalonia".





This thesis was directed by Dr Montserrat Mestres Solé and Dr Ricard Boqué Martí, professors at the Universitat Rovira i Virgili (URV), and Dr Agustí Romero Aroca, researcher at the Institut de Recerca i Tecnologia agroalimentaria (IRTA). The research was carried out thanks to funding from the IOC's PhD scholarship programme that was awarded for the period from 2016-2019.

The aim of the thesis was to establish the current prevalence of ethyl esters in oils produced in Catalonia, as well as to study some agronomic and technological factors considered critical for forming the precursors of these compounds, both in the fruit and in the oil. Specifically, we studied (1) the levels of ethyl esters in virgin olive oils produced in Catalonia over five crop years; (2) the effect of 13 varieties on the endogenous quantity of alkyl ester precursor alcohols; (3) the effect of storing olives, even for a short time, in a large capacity hopper on the formation of alkyl alcohols and their relationship with some sensory defects; and (4) the effect of oil separation (specifically, the addition of water and the rate of paste injection in the horizontal centrifuge) on the equilibrium of alkyl esters and their precursor alcohols.

The tests carried out throughout this thesis were done under real conditions in the olive mill of La Granadella (Garrigues, Spain). The results were as follows:

- (1) The vast majority of extra virgin olive oils produced in Catalonia comply with the ethyl ester limits established in official regulations. However, around 6% of these oils risk losing their category if the legal limit is further reduced, as they have a relatively high ethyl ester content (25-35 mg/kg).
- (2) There are significant differences between varieties of healthy, ripe fruit in terms of their endogenous alcohol content. In particular, the Catalan cultivars 'Morrut', 'Llumet' and 'Empeltre' produce high levels of ethanol, while 'Sevillanca', 'Argudell' and 'Arbosana' produce very low levels. The results also show that high alcohol content is not always due to an alteration in olive quality.
- (3) The regular use in Catalonia of large-capacity hoppers to store olives, even for a short time, often causes damage that induces certain microbiological activity, which leads to ethanol production and the loss of sensory qualities.
- (4) During the pressing-churning stage, and under the trial conditions, no ethanol was generated, but methanol was clearly synthesised. On the other hand, almost all ethyl and methyl esters entering the system with the fruit were detected in the oil at the end of processing. Up to 25% of the ethanol present in the olive may reach the oil at the outlet of the vertical centrifuge, which increases the risk of forming new ethyl esters when decanting and storing the oil. However, most of the methanol is washed out with the by-products of the decanter and vertical centrifuge.
- (5) The rate the paste is injected into the decanter affects the content of alcohols and alkyl esters in the oil, which tend to increase when working close to the maximum capacity of the decanter. Conversely, adding water into the decanter tends to carry away the ethanol with the alperujo, which reduces the risk of forming ethyl esters when the oil is stored.



In addition, it was found that ethanol and ethyl esters can form in the vibro-filter located at the join between the decanter and the vertical centrifuge. Future designs of this unit should be easy to clean and allow the oil to be siphoned off to the vertical centrifuge quickly.

In short, the collaboration between the IOC, IRTA, URV and the Generalitat de Catalunya allowed us to evaluate the problem of ethyl esters in Catalanian oils, to define its progress in the face of future changes in the standard and to detect critical points of the system to be considered when issues are detected in these compounds.



From left to right, Dr Montserrat Mestres (URV, co-supervisor), Dr Ricard Boqué (URV, co-supervisor), Dr Sebastián Sánchez (UJA, panel), Dr Olga Busto (URV, panel), Dr Abdelaziz Boudebouz (PhD student), Dr Jordi Graell (UdL, panel) and Dr Agustí Romero (IRTA, co-supervisor).

PHD HRISTOFOR MIHO'S THESIS

On 19 May 2021, the newly Dr Hristofor Miho presented his doctoral thesis: OLIVE OIL PHENOLIC COMPOSITION: CULTIVAR VARIABILITY, EFFECTS OF TECHNOLOGICAL FACTORS AND OXIDATIVE STABILITY. This thesis was supervised by professors at the University of Córdoba: Dr Concepción Muñoz Díez and Dr Feliciano Priego Capote.

The research was carried out thanks to funding from the IOC's PhD scholarship programme which was awarded for the period from 2016 to 2019.

This paper has greatly furthered our knowledge of the phenolic compounds of virgin olive oil, analysing and verifying its diversity and inter-varietal variability for three consecutive years. For the first time, an exhaustive classification of a wide and representative number of varieties was carried out based on their phenolic composition. This thesis has contributed significantly to the study of the effect of certain technological factors on making higher quality oils, and the decisive role of phenols on the shelf life of virgin olive oil.



As a result, the articles that make up the thesis report have piqued the interest of several agro-industrial companies which, alongside the University of Córdoba, have designed and implemented mechanisms for genetic improvement to obtain new varieties of olive that are differentiated by the phenolic content of their oils.



More specifically, one of the key advances achieved through this research is the ability to characterise the phenolic composition, based on nine individual phenols, of the virgin olive oil of 80 varieties of olive under the same agro-environmental and technological conditions. This meant the varieties could be classified according to their richness in phenols and grouped into three categories according to their phenolic profiles. And, thanks to a three-year trial, the researchers were able to determine the weight of genes with respect to environment in how phenols vary in different oils for the first time.

A third study demonstrated the effects of using vacuum conditions during churning and how the duration of churning affects the phenolic composition of an olive oil. The results revealed that using a vacuum helped preserve phenolic compounds, while churning for longer than 30 minutes made phenolic compounds degrade faster. The trial also demonstrated that phenolic compounds and, particularly, specific phenolic profiles and/or phenols, together with fatty acid composition, play a decisive role in the shelf life of an olive oil. Thanks to these results, a mathematical model was designed to define the shelf life of an oil based on its phenolic and fatty acid composition.

The thesis can be read here: <https://helvia.uco.es/xmlui/handle/10396/21410>



PHD MURAD IRSHIED MAAITAH THESIS

On 27 April 2020, Dr Murad Irshied Maaitah presented his doctoral thesis entitled: PRODUCTION OF MICROALGAE USING WASTEWATER FROM A TWO OUTPUT DECANTERED OLIVE OIL EXTRACTION PROCESS. This thesis was supervised by Sebastián Sánchez Villasclaras, Professor of Chemical Engineering at the University of Jaén, and by Gassan Hodaifa Meri, Professor of Chemical Engineering at the University Pablo de Olavide of Seville.



The research was carried out thanks to funding from the IOC's PhD scholarship programme which was awarded for the period from 2016-2019.

This paper marks an important step in the study of the use of wastewater from olive oil mills and urban wastewater from secondary treatment to produce biomass from *Chlorella pyrenoidosa*, a microalgae.

The research focused on developing bioprocesses to improve wastewater treatment, generate more energetic compounds and reduce atmospheric CO₂ concentration.



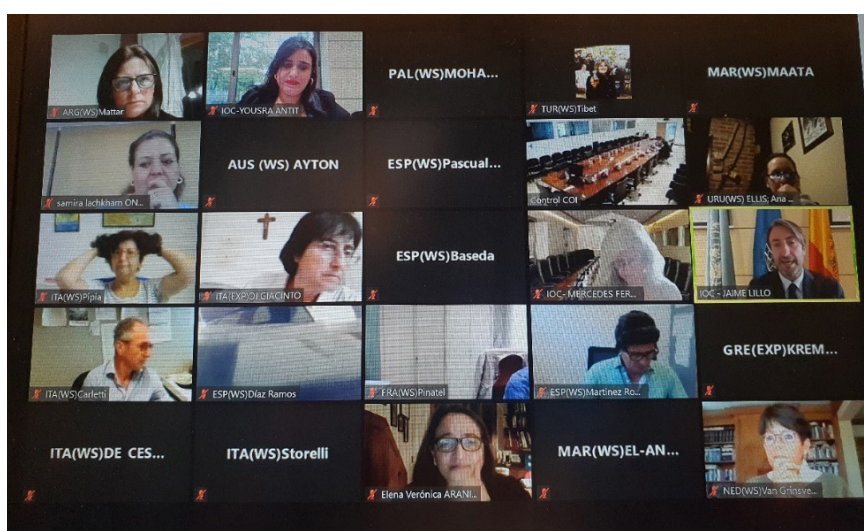
The researchers were able to draw numerous conclusions from this study, most notably the following: a) the determination of the different physico-chemical composition between the two types of oil mill water and wastewater; b) the comparison between the algae *Chlorella pyrenoidosa* and *Scenedesmus quadricauda*, where *C. pyrenoidosa* grew quicker, made more biomass and was more bio-chemically suited to producing biodiesel, and the most suitable temperature to grow *C. pyrenoidosa*



was found to be in the range of 15 to 30°C, which was also influenced by the speed of the air supply; c) wastewater from olive washing, oil washing and using both types of liquid effluents from olive oil mills with urban wastewater from secondary treatment is a suitable nutrient medium to grow *C. pyrenoidosa*; d) generally, in all cultures, the physico-chemical parameters in the final culture water were found to be reduced. Carbon dioxide helped improve the ability of *C. pyrenoidosa* to remove pollutants from wastewater; and e) the best conditions to achieve the initial objectives were found to be a culture medium consisting of 50% olive washing water, 30% oil washing water, 20% urban secondary treatment water, and 10% CO₂ in the gas phase input to the photobioreactor, using a temperature of 25°C and a specific gas phase supply rate of 1 v/v/min.

SECOND WORKSHOP ON HARMONISATION OF IOC-RECOGNISED PANELS

As per its programme of activities for 2021, the Standardisation and Research Unit held the second workshop to harmonise the tasting panels that have been granted IOC approval. This workshop, which was free of charge, was held by videoconference with simultaneous interpretation and attended by over 100 panels from 30 countries.



15-17 September 2021
Via videoconference

As per its programme of activities for 2021, the Standardisation and Research Unit held the second workshop to harmonise the tasting panels that have been granted IOC approval. This workshop, which was free

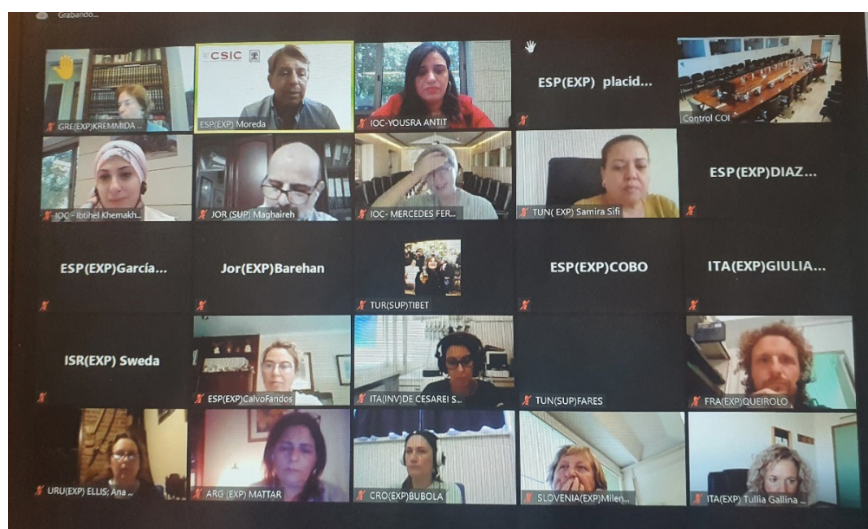


of charge, was held by videoconference with simultaneous interpretation and attended by over 100 panels from 30 countries.

The aim of the theoretical-practical programme was to minimise the differences between panels and encourage the continued training of panel members. For each sample, the data were inserted into an intrapanel platform for their statistical analysis.

The panels who registered for this workshop were sent samples in July 2021 and stored them until the event following the corresponding instructions. Given the success of this second edition, a third will be added to the agenda of the Standardisation and Research Unit to be held next year by videoconference. The dates will be published on the IOC website in due course.

MEETING OF EXPERTS ON ORGANOLEPTIC ASSESSMENT

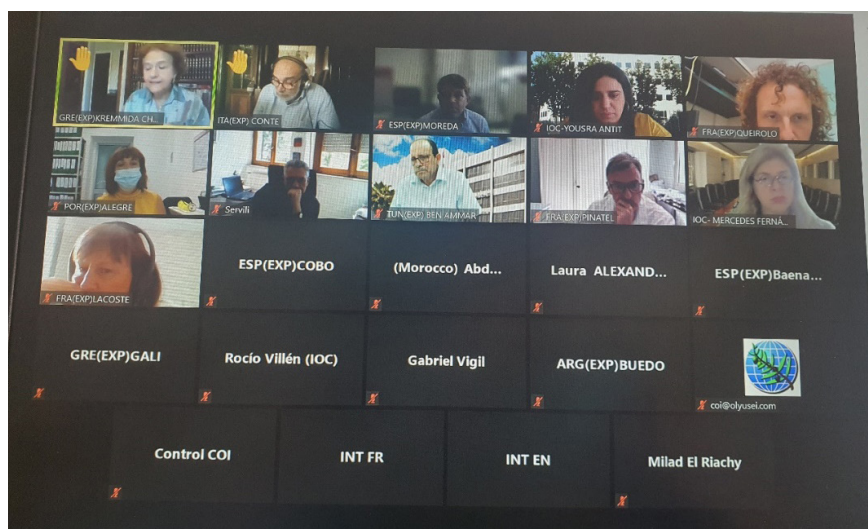


MADRID / Some 40 experts on the organoleptic assessment of virgin olive oils, mostly leaders of IOC-recognised tasting panels from different countries, met in a videoconference organised by the Executive Secretariat on 20 and 21 September 2021.

Several matters of interest were discussed, including the most recent and potential future revisions of the organoleptic assessment method and related documents. Attendees also discussed the progress of the work of the electronic working groups on sensory analysis: accreditation, the education and training of tasters, the development of reference material, samples at the borderline between categories, the drafting of a guide for IOC patronage for courses organised by competent authorities, the results of the inter-comparative trials for tasting panels to obtain recognition for the period 2021-2022 and priorities for future work.



MEETING OF EXPERTS ON THE COMPOSITION OF OILS WITH ANOMALOUS PARAMETERS

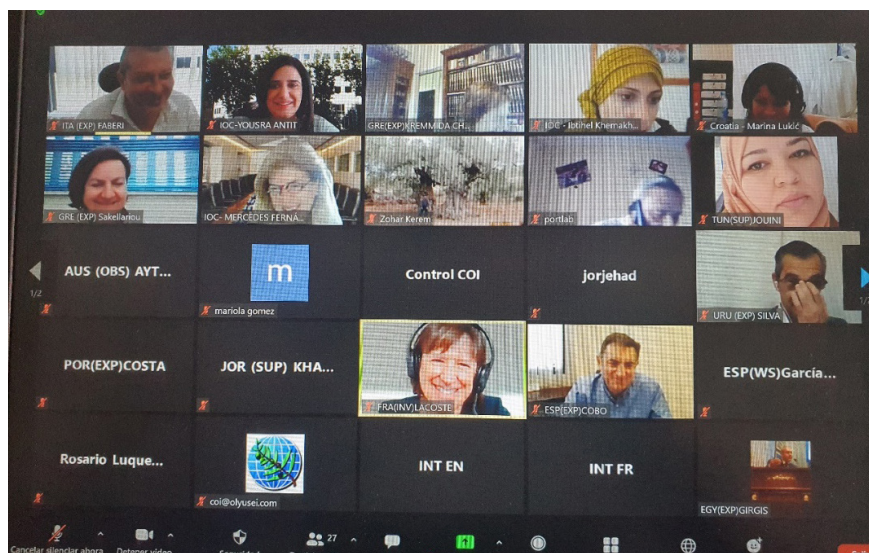


MADRID / On 23 September 2021, the Executive Secretariat held a meeting by videoconference with the experts on the composition of oils with anomalous parameters. During the meeting, the experts discussed the progress of the work on olive oils with non-standard parameters, the priorities for future work, and the work of the electronic working group of the Codex Committee on Fats and Oils for the revision of the Codex standard for olive oils and olive-pomace oil.

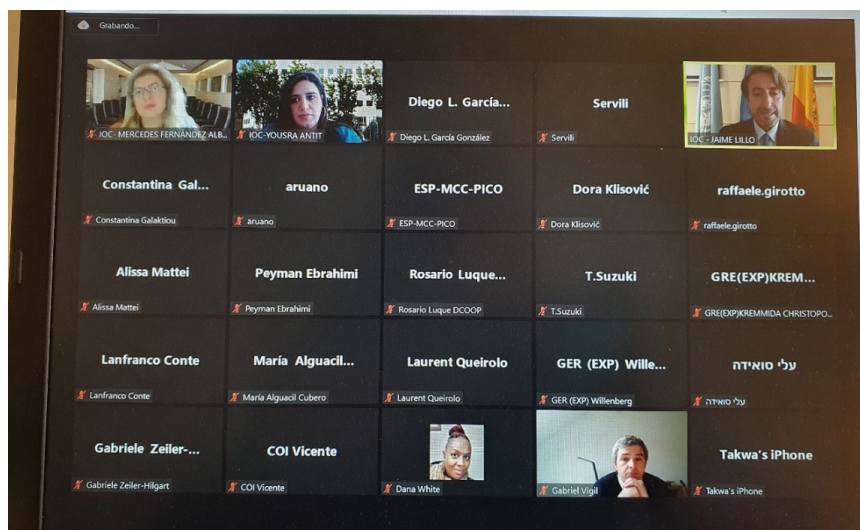
MEETING OF CHEMISTRY EXPERTS

MADRID / On 5 and 6 October 2021, the Executive Secretariat held a meeting with expert chemists from around the world. Observers from a number of countries and institutions attended, including Australia, Canada, the USA, the Codex Alimentarius Commission, the International Organization for Standardization, and representatives of the Advisory Committee.

The attendees discussed matters of interest in the fields of standardisation, research and the study of methods of analysis to guarantee the quality and authenticity of olive oils and olive-pomace oils. Among the presentations given were the conclusions of the analysis of data from different countries; the studies conducted and the reports agreed upon to harmonise international standards; the results of the collaborative trials (phenolic compounds, waxes and pesticides); and priorities for future work, such as the creation of specific electronic working groups. Possible revision of methods and parameters will be presented at the 114th session of the Council of Members.



PRESENTATION OF OLEUM FINDINGS AND CONCLUSIONS



MADRID / On 13 October 2021, the Executive Secretariat held a virtual meeting with simultaneous interpretation in coordination with the Oleum team to present the project's findings and conclusions. The meeting was attended by around 109 participants from around all over the world. The IOC congratulated the Oleum team for the excellent work carried out over the years.



The Oleum project is a European-funded project by a core group of 21 partners. More information can be found via the link below.

<http://www.oleumproject.eu/news/newsletters/article/the-oleum-revolution-of-quality-and-authenticity-control>

UPCOMING EVENTS



MADRID / An IOC delegation will take part in the 27th session of the Codex Committee of Fats and Oils (CCFO) from 18 to 26 October 2021 with the plenary session by videoconference. The IOC participated actively in the eWG for the revision of the standard CODEX-STAN 33/81 by sending comments on the monthly response forms and on the proposed draft standard, and by providing scientific reports on specific items.

The IOC will also take part in the next meeting of the International Organization for Standardization – the 29th meeting on ISO/TC34/11 on animals and vegetable fats and oils. This meeting will be held by videoconference from 18 to 22 November 2021.

MARIO SOLINAS QUALITY AWARD CEREMONY

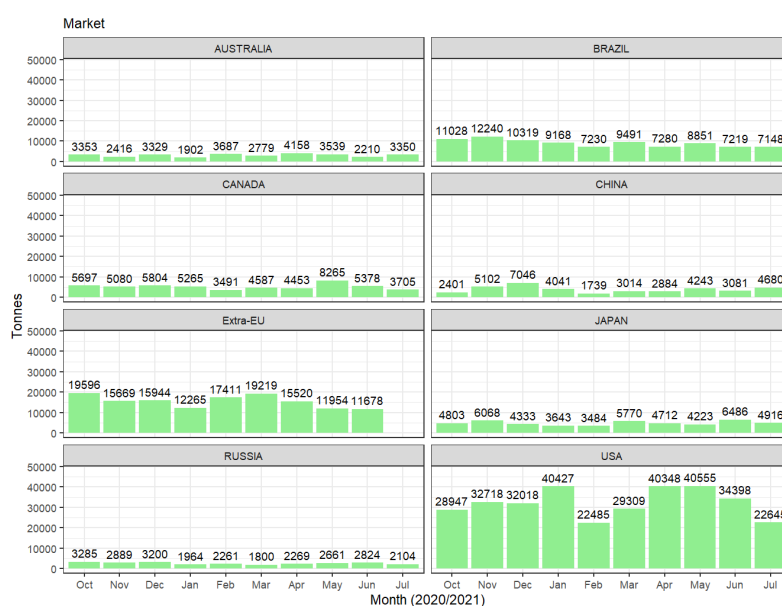
MADRID / The prize-giving ceremony for the winning olive oils of the Mario Solinas Quality Award 2021 will be held by videoconference on 28 October 2021 at 10.00 am. The winners, finalists and the international jury have been invited to the ceremony. The winners and finalists are invited to give a short video on their production of extra virgin olive oil.





WORLD TRADE IN OLIVE OIL AND TABLE OLIVES

In the first ten months of the 2020/2021 crop year, olive oil imports from China and Japan fell by 5.2% and 16.5%, respectively. From September 2020 to July 2021, table olives imports grew by 8%.



Eight markets represent around 81% of the imports of olive oils and virgin olive oils around the world, the United States with 36%, the European Union with 15%, Brazil with 8%, Japan with 7%, Canada with 5%, China with 4%, Australia with 3%, and Russia with 3%. In the first months of the 2020/2021 crop year, imports of olive oils and virgin olive oils in the top eight markets reached 748356 tonnes (-6.9%, compared to the same period previous crop year).

For further information please click on this link: [IOC Imports-2020-21](#)



THE WORLD OF OLIVE OIL AND TABLE OLIVES

By Economic and Promotion Unit – Economic Studies and Statistics Department



FOCUS: EXPORTS OF TABLE OLIVES FROM THE EUROPEAN UNION

In June of the 2020/2021 crop year, the volume and value of extra-EU table olive exports increased. The unit value of exports stood at €274 per 100 kg (+2.4% compared to the previous month).

According to IOC estimates¹, extra-EU exports of table olives reached 297 126 tonnes in the 2019/2020 crop year, with an estimated value of €829.1 million (-8.3% and -3.3%, respectively, compared to the previous crop year). Intra-EU exports totalled 277 599 t with an estimated value of €692.6 million (+1.8% and +4.5%, respectively, compared with the previous crop year).

¹ Crop year is understood as the period from 1 September of year t to 30 October of year t+1. Data for January and February 2021 for the United Kingdom were not available. Trade value at free on board (FOB) rate. Export volume in tonnes, 1t = 1000kg = 1Mg. Values given in euros. The unit value is calculated as (value)/quantity. Sources: Own elaboration based on data from the European Commission; EUROSTAT; Spanish Ministry of Agriculture, Fisheries and Food; data provided by member countries.



COPY YEAR	2017/2018		2018/2019		2019/2020		2020/2021 ^(*)	
Partner country	VOLUME	VALUE	VOLUME	VALUE	VOLUME	VALUE	VOLUME	VALUE
United States	116 910	336.2	127 368	357.4	106 184	326.9	97 843	293.4
Russia	24 816	76.3	26 615	81.6	27 206	82.4	22 619	65.4
United Kingdom	24 676	77.0	24 398	71.9	23 939	68.6	20 943	60.2
Saudi Arabia	19 477	43.8	20 686	45.2	21 613	48.8	15 746	44.2
Canada	18 195	43.7	18 861	45.0	18 664	47.5	17 943	34.8
Australia	14 411	40.6	14 948	41.0	6 159	17.6	4 444	16.0
Brazil	5 344	18.5	9 178	18.9	7 446	20.9	4 588	18.7
Albania	6 971	15.5	7 013	17.3	7 253	18.2	9 214	13.3
Mexico	5 606	14.2	6 358	14.0	6 047	12.2	5 316	7.3
Ukraine	4 901	8.2	4 741	10.3	6 047	12.2	5 459	14.6
Switzerland	5 454	8.7	5 451	12.0	5 880	11.2	5 316	7.3
Others	55 898	139.3	58 024	142.6	54 026	138.5	47 852	117.6
Total	302 658	821.9	323 912	857.2	297 126	829.1	266 011	719.6

Table 1 – Extra-EU exports by country and crop year. Volume in tonnes. Value in millions. (*)2020/2021 from September to June.

In June of the 2020/2021 crop year, the unit value of extra-EU table olive exports stood at €274 per 100 kg (-5.6% compared to the same period the previous crop year or +2.4% compared to the previous month) while the export volume stood at 29 714.7 t (+27.2% compared to the same period of the previous crop year or +1.9% compared to the previous month). The value of these exports reached €81.4 million.

Non-EU exports in June of the 2020/2021 crop year went mainly to the United States (+44%), the United Kingdom (+33.2%), Russia (+1.8%), Canada (+10.6%), Australia (+17.1%), Saudi Arabia (-27.5%), and Brazil (-44.8%), compared to the same period the previous crop year.

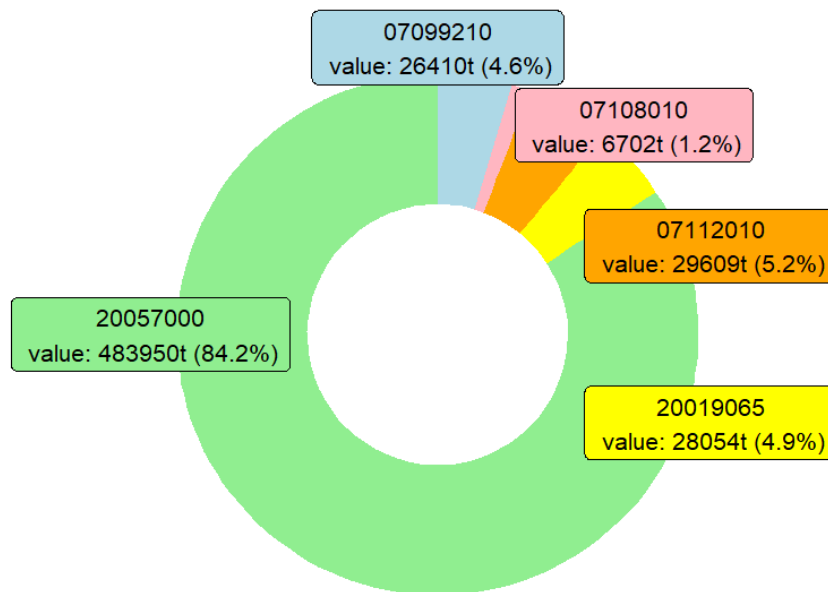


PERIOD	AUSTRALIA	BRAZIL	CANADA	SAUDI ARABIA
2020 Sep	1 785.8	784.6	2 536.8	1 681.1
2020 Oct	1 692.3	870.1	2 307.0	1 615.3
2020 Nov	1 324.3	514.3	1 804.1	2 015.4
2020 Dec	1 595.9	585.7	1 559.3	1 370.6
2021 Jan	1 033.5	313.3	1 337.3	1 599.5
2021 Feb	1 422.5	388.4	1 388.2	1 797.7
2021 Mar	1 388.4	371.4	1 558.5	1 850.5
2021 Apr	1 414.7	316.9	1 761.1	817.1
2021 May	1 170.0	237.9	1 876.2	1 809.6
2021 Jun	1 218.3	205.4	1 814.1	1 188.8

PERIOD	UNITED KINGDOM	RUSSIA	UNITED STATES	EXTRA-EU
2020 Sep	2 208.4	3 495.6	11 788.4	31 196.6
2020 Oct	2 152.4	3 805.5	10 395.7	30 143.0
2020 Nov	2 199.2	2 747.7	8 691.7	26 795.5
2020 Dec	1 684.1	1 900.6	10 267.2	26 088.5
2021 Jan	-	1 245.8	6 483.3	17 523.4
2021 Feb	-	1 937.2	7 673.5	11 176.1
2021 Mar	2 514.9	2 029.0	8 765.9	26 659.5
2021 Apr	2 819.4	1 913.9	10 394.5	26 555.4
2021 May	3 774.4	1 546.1	11 344.6	29 158.3
2021 Jun	3 590.3	1 997.3	12 037.9	29 714.7

Table 2 – Exports in volume of tonnes per month and country.

In terms of volumes by product category, approximately 84% of exports fell under code 20057000 (olives, prepared or preserved in ways other than by vinegar or acetic acid (excl. frozen)).



Graph 1 – Table olives by product category. Tonnes. 2019/2020 crop year.

<https://www.internationaloliveoil.org/what-we-do/economic-affairs-promotion-unit/#prices>

I. WORLD TRADE IN OLIVE OIL AND TABLE OLIVES

1. OLIVE OIL – 2020/21 CROP YEAR

The table below shows trade in olive oil and olive pomace oil in eight countries in the first ten months of the current crop year (October 2020–July 2021). Imports rose by 22% in Russia, 8% in Canada, 2% in the US and 2% in Brazil compared to the same period the previous crop year. However, imports fell by 17% in Japan, 5% in China and 1% in Australia.

However, imports fell by 17% in Japan, 5% in China and 1% in Australia.



In the first nine months of the 2020/21 crop year, intra-EU acquisitions rose by 3% and extra-EU imports fell by 22% compared to the same period the previous crop year².

OLIVE OIL IMPORTS (INCLUDING OLIVE POMACE OIL)(T)										
Country	OCT 19	OCT 20	NOV 19	NOV 20	DEC 19	DEC 20	JAN 20	JAN 21	FEB 20	FEB 21
Australia	2275.4	3353.3	2471.8	2563.6	2443.6	3377.3	3130.2	1942.9	2375.6	3708.4
Brazil	8334.3	11052.3	10999.9	12249.6	7845.2	10356.0	8938.4	9219.6	8860.8	7230.1
Canada	4516.1	5755.7	4001.1	5146.6	4182.1	5900.5	4104.4	5417.4	3222.5	3541.5
China	3203.8	2588.2	6565.4	5438.5	6586.4	7785.1	3542.4	4931.3	3542.4	1974.5
Japan	4963.1	4902.6	5298.7	6160.0	7189.2	4478.2	4643.6	3690.9	5125.7	3687.6
Russia	3411.8	4156.7	2628.9	3908.1	2904.4	3992.3	1593.7	2220.1	2122.7	2764.4
USA	33224.7	29339.7	22626.7	33389.2	27204.7	32336.5	23870.3	41415.3	29002.5	22794.7
Extra-EU	13337.0	19817.7	11688.1	22010.5	17869.3	19222.7	14560.8	14900.6	21780.4	17754.0
Intra-EU	102199.1	98528.6	100322.8	104971.3	115451.0	119103.8	98686.6	96943.8	107469.2	119629.3
Total	180976.3	179494.7	169448.3	195837.4	194816.3	206552.4	166805.9	180682.0	181285.4	183084.4

OLIVE OIL IMPORTS (INCLUDING OLIVE POMACE OIL)(T)										
Country	MAR 20	MAR 21	APR 20	APR 21	MAY 20	MAY 21	JUN 20	JUN 21	JUL 20	JUL 21
Australia	2633.4	2840.9	2800.3	4202.0	4259.8	3614.2	4876.5	2263.7	4135.6	3358.0
Brazil	11911.3	9490.6	9276.8	7354.8	8037.8	8858.7	5583.8	7257.3	8861.5	7185.4
Canada	5877.1	4686.8	5477.6	4620.7	7404.6	8360.7	4463.3	5482.6	5698.6	3776.5
China	2780.2	3264.2	2549.1	3204.7	4602.8	4645.5	5729.5	3538.7	5480.4	5092.5
Japan	6332.9	5915.0	6473.0	4888.5	5507.6	4429.1	8549.2	6715.7	5844.9	5095.5
Russia	2935.8	2392.6	3061.1	3117.2	3066.7	3540.5	2690.1	3693.7	2484.2	2919.3
USA	32358.3	29599.8	37219.0	41050.3	39718.1	41981.5	45347.2	35544.0	35315.3	23537.9
Extra-EU	38069.5	20302.2	32500.7	21270.8	31308.2	15448.7	27564.8	12918.7	23984.3	N.D
Intra-EU	112017.9	122183.2	102593.2	95490.3	93260.6	109237.9	97099.9	93493.2	98297.3	N.D
Total	211567.8	200675.3	200772.0	185199.3	195238.0	200116.7	201232.4	170907.6	189777.5	50964.6

² Data for the EU were not available for July 2021 when this newsletter went to print.



2. TABLE OLIVES – 2020/21 CROP YEAR

The table below shows trade in table olives in the first eleven months of the 2020/21 crop year³ (September 2020–July 2021). Imports grew by 26% in Australia, 20% in Canada, 6% in the US and 7% in Brazil compared to the same period the previous crop year.

In the first ten months of the 2020/21 crop year, intra-EU acquisitions fell by 6% and extra-EU imports rose by 5% compared to the same period the previous crop year⁴.

TABLE OLIVE IMPORTS (T)											
Country	SEP 19	SEP 20	OCT 19	OCT 20	NOV 19	NOV 20	DEC 19	DEC 20	JAN 20	JAN 21	FEB 20
Australia	1177.7	1590.2	1187.7	1470.6	1606.4	1671.5	1315.2	2141.9	1488.0	1538.6	1164.9
Brazil	9869.7	14702.7	12570.2	17012.7	13466.6	14990.8	11834.1	14363.3	9248.7	9531.1	9559.4
Canada	2310.2	4139.0	2934.7	3671.0	2863.4	4088.8	3192.4	3140.7	2594.0	3072.5	2050.4
USA	14579.7	8942.1	14945.7	11341.4	13593.2	13197.0	11738.4	11828.2	10062.5	11664.8	9311.0
Extra-EU	6993.8	8372.4	8276.1	10867.0	9150.1	10492.1	9325.1	10589.1	9118.0	8569.6	8639.8
Intra-EU	26166.8	29487.6	38698.8	29041.7	31792.5	29070.6	33542.1	24908.9	23754.8	20449.3	25640.3
Total	62000.9	67232.9	80537.5	73404.4	74518.7	73510.8	66565.9	66972.1	58491.0	54825.9	55940.8

TABLE OLIVE IMPORTS (T)											
Country	FEB 21	MAR 20	MAR 21	APR 20	APR 21	MAY 20	MAY 21	JUN 20	JUN 21	JUL 20	JUL 21
Australia	2028.3	1313.1	1353.1	1189.3	1645.5	1272.0	1876.8	1448.6	1643.4	1507.1	1593.0
Brazil	9704.5	9705.8	9113.9	7022.8	8573.7	8040.0	6504.8	9629.6	7846.4	10512.5	7208.3
Canada	2375.5	3172.0	3133.8	2659.9	2513.0	3267.6	3372.1	2542.3	3601.5	2511.3	3092.0
USA	8397.8	12787.5	12571.5	11315.2	9505.0	111903.6	14908.1	10680.7	18216.1	10251.1	18166.4
Extra-EU	7817.1	12933.8	11835.2	11125.5	10805.4	9423.8	9871.0	9085.0	9871.3	10603.6	N.D
Intra-EU	23213.3	30347.3	31384.0	23765.1	27635.8	24680.8	27311.3	29570.0	28987.5	32804.1	N.D
Total	53536.5	71395.5	69391.4	55317.7	60678.4	57003.7	63844.0	61798.5	70166.1	67233.1	30059.7

<https://www.internationaloliveoil.org/what-we-do/economic-affairs-promotion-unit/#exports>

³ According to the new provisions of the International Agreement on Olive Oil and Table Olives, 2015, which came into force on 1 January 2017, 'table olive crop year' means the period of twelve months from 1 September of one year to 31 August of the next.

⁴ Data for the EU were not available for July 2021 when this newsletter went to print.



II. PRODUCER PRICES – OLIVE OILS

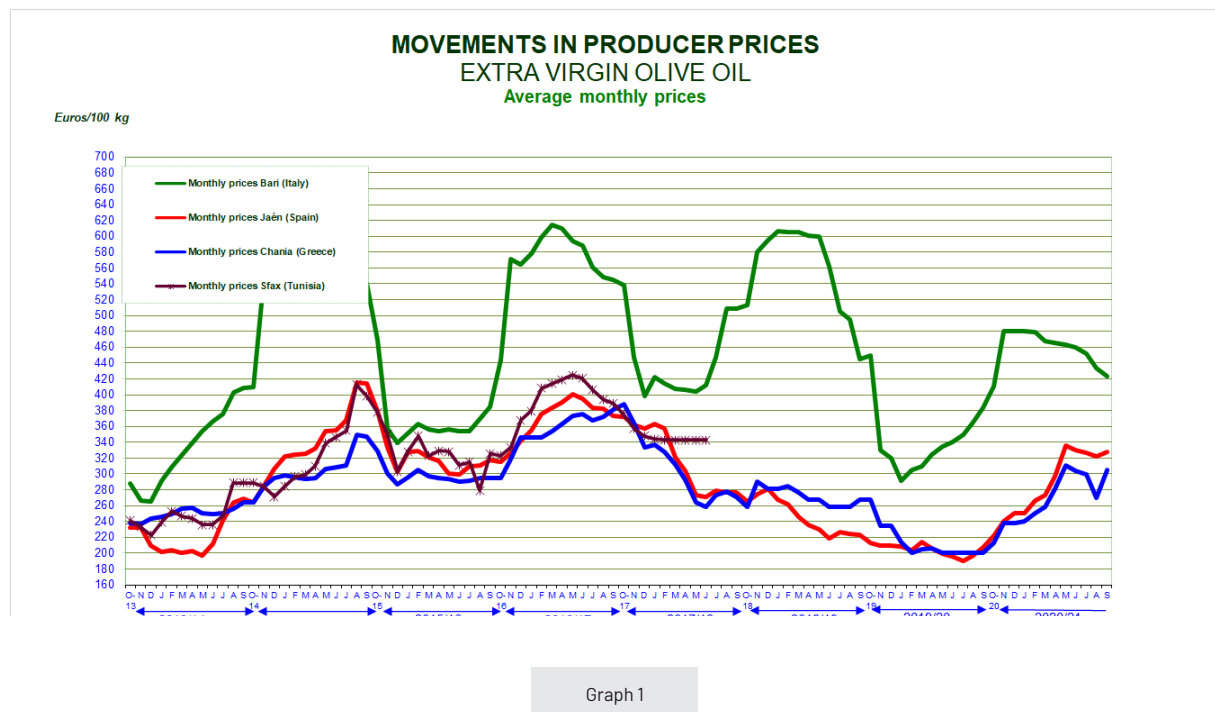
Monthly price movements for extra virgin olive oil and refined olive oil are shown in graphs 1 and 2.

Extra virgin olive oil – Producer prices in Spain from 20 to 26 September 2021 stood at €3.22/kg, a 51.4% rise on the same period the previous crop year.

Italy – Prices in Italy from 20 to 26 September 2021 stood at €4.20/kg, a 9.1% rise on the same period the previous crop year.

Greece – Prices in Greece from 20 to 26 September 2021 stood at €3.10/kg, a 55% rise on the same period the previous crop year.

Tunisia – Prices in Tunisia remained stable in the last weeks of June 2018, at €3.43/kg, an 18% fall compared to the same period the previous crop year.

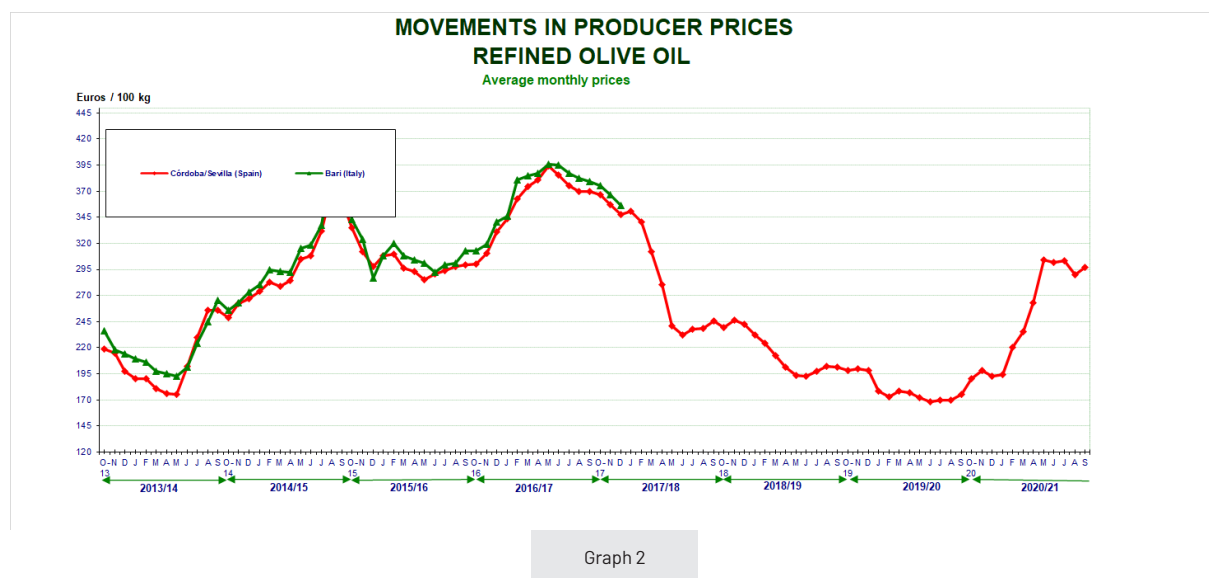


Refined olive oil: Producer prices in Spain stood at €2.96/kg from 20 to 26 September 2021, which indicates an increase of 64.5% compared to the same period the previous crop year. Data for Italy in this cate-



gory have not been available since the end of December 2017 when they had increased by 4% to €3.56/kg.

The difference between the price of extra virgin olive oil (€3.22/kg) and refined olive oil (€2.96/kg) in Spain was €0.26/kg. In Italy, the difference was €0.43/kg in December 2017.



<https://www.internationaloliveoil.org/what-we-do/economic-affairs-promotion-unit/#prices>



IOC

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