

ESSENTIAL OILS AND OLEORESINS MARKET INSIDER



Field still for distillation of ylang ylang, Comoros Islands

November 2015 Report

Market Insider

Report prepared for ITC's Market Insider by:

Mr Steve Caiger steve.caiger@highvaluehorticulture.com

Building awareness and assisting developing countries with access to trade and market information has been at the heart of the International Trade Centre (ITC) work. The Market Insider is a newly branded global public goods service built on a "blog" interface to provide just-in-time content on market prices and industry developments focusing on forward-looking intelligence in anticipation of market opportunities, market dynamics, quality issues, trade events and sector-specific intelligence on commodities of interest to developing countries.

No part of these reports may be reproduced, stored in a retrieval system, or transmitted in any form or by any means without the prior permission of the MI/ITC Geneva.

Market Insider information is available free of charge to trade support institutions, enterprises and research institutions in developing and developed countries.

Please log on to:

<http://www.intracen.org/market-insider>

<http://www.marketinsider.org>



@ITCMktinsider

Copyright © Market Insider/ITC 2015. All rights reserved

Index

Price Information.....	15
Conventional essential oils.....	15
Spice Oils	Error! Bookmark not defined.
Spice Seed Oils.....	Error! Bookmark not defined.
Citrus Oils.....	Error! Bookmark not defined.
Herb Oils	Error! Bookmark not defined.
Perfumery Oils	Error! Bookmark not defined.
Price Information.....	19
Organic essential oils	19
Spice Oils	Error! Bookmark not defined.
Spice Seed Oils.....	Error! Bookmark not defined.
Citrus Oils.....	Error! Bookmark not defined.
Herb Oils	Error! Bookmark not defined.
Perfumery Oils	Error! Bookmark not defined.

Climate action reaches tipping point as corporate "A Listers" revealed

Three weeks ahead of COP21, the UN climate change conference, when national leaders meet to agree a global deal to reduce carbon emissions and limit global temperature warming, disclosures from the world's largest listed companies reveal the extent to which corporations have shifted their strategies over the past five years to become part of the solution to the climate challenge. The international not-for-profit CDP (formerly known as Carbon Disclosure Project) - which holds the most comprehensive set of global corporate environmental data - has today issued its annual Climate Change Report on behalf of 822 investors representing US\$95 trillion.

The new publication includes the 2015 Climate A List (*see below*), which comprises those companies identified as A grade for their actions to mitigate climate change. Nearly 2,000 companies submitted information to be independently assessed against CDP's scoring methodology; 113 have made the list, which features brands from around the world such as, Apple, Microsoft and Google, the three largest by market capitalization.

CDP's executive chairman and co-founder Paul Dickinson says: "The influence of the corporation is mighty. The momentum of business action on climate change suggests we have reached a tipping point, where companies are poised to achieve their full potential. They need ambitious policy at both a national and international level that will support them in this regard and will catalyze participation from industry at scale."

CDP charts the changed corporate landscape over five years, comparing data from 1,997 companies this year, with 1,799 in 2010. Companies globally are taking action and making investments to prepare for the transition to a low carbon economy. For example, at 94%, nearly all companies assign board or senior management responsibility to climate change and three quarters offer incentives for improving climate performance. Nine of every ten companies now have activities in place that are lowering their carbon output, compared with less than half in 2010. The %age of businesses with targets to reduce the intensity of their greenhouse gas emissions has also more than doubled.

Meg Whitman, President and CEO at Hewlett Packard Enterprise, formerly Hewlett-Packard, which has achieved A List status this year, says: "We must take swift and bold action to address the root causes of climate change. This means disrupting the status quo - changing the way we do business, holding ourselves and others accountable, and creating innovative solutions that drive a low-carbon economy." The growing momentum among the corporate world is coinciding with increasing engagement on climate change from the investor community. If the recently introduced landmark pension fund voting guidelines known as the Red Lines are applied, failure to disclose to CDP may put chairpersons' jobs at risk. And more investors are betting on a sustainable future: US\$21.4 trillion was invested in 2014 in funds with environmental, social and governance mandates, up 61% in two years.

Companies are responding to investor needs by improving the quality of the data they report through CDP. However, notable by their absence in CDP's analysis are Agricultural Bank of China Ltd, Berkshire Hathaway, and Facebook the three largest by market capitalization companies that have failed to disclose to investors via CDP.

Source: CDP

CDP 'A' List includes Givaudan, IFF, and Symrise

Givaudan, IFF and Symrise made it on to the CDP A list. Firmenich was named as best supply chain responder in Switzerland. The full A list is given below.

Category: Consumer Discretionary

Best Buy Co., Inc. USA
BMW AG Germany
Coway Co Ltd South Korea
Fiat Chrysler Automobiles NV Italy
Las Vegas Sands Corporation USA
LG Electronics South Korea
Melia Hotels International SA Spain
NH Hotel Group Spain
Nissan Motor Co., Ltd. Japan
Sky UK Limited United Kingdom
Sony Corporation Japan
Wyndham Worldwide Corporation USA
YOOX SpA Italy

Category: Consumer Staples

Asahi Group Holdings, Ltd. Japan
Brown-Forman Corporation USA
Diageo Plc United Kingdom
J Sainsbury Plc United Kingdom
Kesko Corporation Finland
L'Oréal France
Nestlé Switzerland
Philip Morris International USA
SABMiller United Kingdom
Suntory Beverage & Food Japan
Unilever Plc United Kingdom

Category: Energy

Galp Energia SGPS SA Portugal
PTT Exploration & Production Public Company Limited, Thailand

Category: Financials

Bank of America USA
BNY Mellon USA
CaixaBank Spain
Citigroup Inc. USA
Credit Suisse Switzerland
Dexus Property Group Australia
Foncière des Régions France
Grupo Financiero Banorte SAB de CV Mexico
Host Hotels & Resorts, Inc. USA
ING Group Netherlands
Intesa Sanpaolo S.p.A Italy
Investa Office Fund Australia
Investec Limited South Africa
Kiwi Property Group New Zealand
Macerich Co. USA
MAPFRE Spain
Nedbank Limited South Africa
Principal Financial Group, Inc. USA
Raiffeisen Bank International AG Austria
Shinhan Financial Group South Korea
Simon Property Group USA
Standard Chartered United Kingdom

State Street Corporation USA
T.GARANTI BANKASI A. Turkey
The Hartford Financial Services Group, Inc. USA

Category: Healthcare
Roche Holding AG Switzerland

Category: Industrials
Abengoa Spain
Carillion United Kingdom
CNH Industrial NV United Kingdom
CSX Corporation USA
Dai Nippon Printing Co., Ltd. Japan
Deutsche Bahn AG* Germany
Deutsche Post AG Germany
Ferrovial Spain
Huber + Suhner AG Switzerland
Hyundai E&C South Korea
Kingspan Group PLC Ireland
Kone Oyj Finland
Obrascon Huarte Lain (OHL) Spain
Pitney Bowes Inc. USA
Raytheon Company USA
Royal BAM Group NV Netherlands
Royal Philips Netherlands
Samsung C&T South Korea
Samsung Engineering South Korea
Schneider Electric France
Senior Plc United Kingdom
Shimizu Corporation Japan
Siemens AG Germany
Stanley Black & Decker, Inc. USA
United Technologies Corporation USA

Category: Information Technology
Accenture Ireland
Adobe Systems, Inc. USA
Alcatel - Lucent France
Apple Inc. USA
Atos SE France
Autodesk, Inc. USA
Cisco Systems, Inc. USA
EMC Corporation USA
Google Inc. USA
Hewlett-Packard USA
Hitachi, Ltd. Japan
Juniper Networks, Inc. USA
LG Innotek South Korea
Microsoft Corporation USA
Samsung Electro-Mechanics Co., Ltd. South Korea
Samsung Electronics South Korea

Category: Materials
BillerudKorsnäs Sweden
Givaudan SA Switzerland
Harmony Gold Mining Co Ltd* South Africa
International Flavors & Fragrances Inc. USA
Kumba Iron Ore South Africa
Sealed Air Corp. USA
Symrise AG Germany

The Mosaic Company USA

Category: Telecommunication Services
Proximus (formerly Belgacom) Belgium
KT Corporation South Korea
LG Uplus South Korea
Sprint Corporation USA
Swisscom Switzerland
Telefonica Spain
Telenor Group Norway

Category: Utilities
ACCIONA S.A. Spain
E.ON SE Germany
EDP - Energias de Portugal S.A. Portugal
Entergy Corporation USA
Iberdrola SA Spain

RIFM Safety evaluation process outlined

RIFM (Research Institute for Fragrance Materials) works to provide scientific data for the safety evaluation of fragrance materials. The fragrance industry believes that consumers should be confident that the products they buy are safe. Consumers today are aware of potential health and environmental issues and wish to make informed purchase choices. Therefore, the industry is committed to addressing consumers' interests through a continuous health and environmental safety review of fragrance ingredients. The Research Institute for Fragrance Materials (RIFM) is the organization missioned to provide the scientific basis for meeting that commitment.

The full details of the RIFM safety evaluation process are publicly available in published form entitled 'Criteria for the Research Institute for Fragrance Materials, Inc. (RIFM) safety evaluation process for fragrance ingredients'. All of RIFM's research is published and easily accessed in the public domain, on its website at www.rifm.org or its Online Open Source Fragrance Material Safety Assessment Center at <http://fragrancematerialsafetyresource.elsevier.com/>.

See http://www.rifm.org/uploads/CriteriaRIFM_SftyEvalProc_FCT012015.pdf for the full Criteria article. An abstract is shown below.

Established in 1966, RIFM has a long track record of scientifically sound safety assessment and methodology research. In recent years, RIFM has intensified efforts to conduct full safety assessments on the ingredients used in the fragrance industry. Summaries of the assessments are made available through a peer-reviewed scientific publication. More detailed summaries are made available to RIFM members in order to help them with their own internal safety assessments.

RIFM is a leading institution in advancing the methodologies used in ingredient safety assessments. These methodologies, including the RIFM-Creme Aggregate Exposure Model, the Quantitative Risk Assessment (QRA), the 2-Box Air Exposure Model, and the RIFM Environmental Framework, have met with very positive responses from regulators and other experts. These methodologies are all published.

For more than 40 years, the International Fragrance Association (IFRA) has supported the fragrance industry commitment through published Safety Standards based on RIFM's findings. RIFM and IFRA continuously advise and engage with fragrance companies, their customers, and regulators in an open, science-based dialogue that supports innovations in product safety and fosters improved transparency.

Source: RIFM

Criteria for the Research Institute for Fragrance Materials, Inc. (RIFM) safety evaluation process for fragrance ingredients

A B S T R A C T The Research Institute for Fragrance Materials, Inc. (RIFM) has been engaged in the generation and evaluation of safety data for fragrance materials since its inception over 45 years ago. Over time, RIFM's approach to gathering data, estimating exposure and assessing safety has evolved as the tools for risk assessment evolved. This publication is designed to update the RIFM safety assessment process, which follows a series of decision trees, reflecting advances in approaches in risk assessment and new and classical toxicological methodologies employed by RIFM over the past ten years. These changes include incorporating 1) new scientific information including a framework for choosing structural analogs, 2) consideration of the Threshold of Toxicological Concern (TTC), 3) the Quantitative Risk Assessment (QRA) for dermal sensitization, 4) the respiratory route of exposure, 5) aggregate exposure assessment methodology, 6) the latest methodology and approaches to risk assessments, 7) the latest alternatives to animal testing methodology and 8) environmental risk assessment. The assessment begins with a thorough analysis of existing data followed by in silico analysis, identification of 'read across' analogs, generation of additional data through in vitro testing as well as consideration of the TTC approach. If necessary, risk management may be considered.

Ginkgo and Robertet Extend Partnership

Ginkgo Bioworks announced an extended partnership with Robertet, a leading French fragrance maker. The new contract sets up a multi-year, multi-million dollar partnership, and Ginkgo will develop a new palette of cultured ingredients for Robertet from the lactone family to produce a creamy character and smell similar to coconut, peach, apricot and mango. Ginkgo and Robertet have worked together before to produce the scent of a rose with custom-designed microbes.

The partnership expansion shows the strong momentum for the company and the growth potential for designer microbes in consumer products. Ginkgo's robotic foundry BioWorks1 is working to scale the biological processes and will enable them to gain insights that will help further the production of designer ingredients.

Source: Robertet

Firmenich continues development of its AFFIRM technology

Firmenich announces investment of half a million Swiss Francs to further develop its AFFIRM® technology to enhance its flavor design process in order to create more consumer preference for its strategic partners.

"Understanding the interactions between flavor and food as it's consumed is critical for the food and beverage industry to offer consumers the products they love", said Chris Millington, President, Flavors. "Building on our focus to shape winning solutions for our customers, we developed our AFFIRM® technology to deepen our understanding of these interactions. Thanks to these proprietary tools, our flavor design process triggers greater consumer preference", adds Millington.

With this investment, Firmenich will be able to understand more complex flavor systems by measuring more volatiles in real time, with higher precision, greater sensitivity and better discrimination than ever before. Improved accuracy will also allow Firmenich to create consumer preferred flavors faster and more cost-efficiently. With this knowledge, the company will be able to move from analyzing the performance of the flavors to predicting the performance of the flavors.

Firmenich began by developing its (MS-NOSE), in collaboration with the University of Nottingham several years ago. After a series of continuous improvements, the leading Flavor and Fragrance House has now invested in the next generation of AFFIRM® to maintain its leadership in this field for the benefit of product development and flavor creation.

AFFIRM® stands for Analysis of Flavor and Fragrances in Real tiMe. It is the ultimate instrument that objectively measures the release kinetics of aroma molecules during food consumption or preparation, allowing for the quantification (at low ppt level) of flavor molecules

released from a food matrix as it is consumed. By capturing this data, Firmenich can understand which elements of a flavor are most impactful, leading to more effective and efficient flavor creation for its clients.

The AFFIRM® can be used in conjunction with an artificial mouth, also developed within Firmenich, maximizing the impact of both technologies and allowing the company to quickly analyze the performance of flavors in their applications. The Firmenich artificial mouth is a state-of-the-art device developed to mimic mastication reducing the need for multiple human panelists to have to chew food. This is the first time ever that such artificial mouth has been connected to AFFIRM®, allowing Firmenich to rapidly test products for its clients. “This way we produce more consistent results,” says Dr Shane Avison, Senior Scientist, Global Innovation, “which is especially attractive for time consuming studies such as long-lasting chewing gum.”

“The technology is marvelously robust and has given us ample understanding of how different flavor molecules are released from food, which allows us to develop the most highly-advanced flavors for our clients,” continues Dr Igor Bodnár, Senior Project Manager, Global Innovation. “We are now working on extending the methodology to more complex foods such as protein. This will give us a huge advantage when it comes to creating the most authentic flavors for Savory, as well as dairy-based products.” The methodology was recently published in the *Journal of Agricultural and Food Chemistry*(1).

“The AFFIRM® and Artificial mouth are great proprietary technologies that help us understand why and when our products are best performing across a wide range of food and beverage applications. It is also a great asset to guide our innovation in key areas like flavor delivery systems,” states Dr Jérôme Barra, Vice President Global Innovation. “This way, we ensure we are doing the right things to continue serving our customers and their consumers.”

Source: Firmenich

IFF Drives Supply Chain Transparency by Joining Forces with Together for Sustainability

International Flavors & Fragrances Inc. a leading global creator of flavors, fragrances and cosmetic actives for consumer products, announced today that its membership application for *Together for Sustainability* (TfS) has been finalized and accepted. IFF is the first flavors and fragrances company to join TfS and enters into a growing consortium of multi-national companies committed to ensuring sustainable practices throughout the supply chain. Established in 2011, the TfS initiative has brought together 18 international chemical companies to date. Constantly expanding, the organization is focused on implementing a standardized global supplier engagement program for responsible procurement of goods and services in the chemical industry and improving sustainability practices of suppliers.

“The goals of TfS are perfectly aligned with IFF’s Vision 2020 business strategy,” said Francisco Fortanet, Executive Vice President, Global Operations. “This endeavor complements our past efforts and works to solidify our future efficiency goals. With this collaboration, we will help to create an ecosystem of customers, suppliers and partners who are committed to transparency and accountability.” “We look forward to our industry peers joining us at TfS and meeting the increasing social and environmental expectations of our global customers and consumers,” said Kip Cleverley, Director, Global Sustainability. “We are always exploring opportunities to collaborate and create a more sustainable future for all.”

About IFF

International Flavors & Fragrances Inc. is a leading global creator of flavors, fragrances, and cosmetic actives used in a wide variety of consumer products. Consumers experience these unique scents, tastes, and actives in fine fragrances and beauty care, detergents and household goods, as well as beverages, sweet goods and food products. The Company leverages its competitive advantages of consumer insight, research and development, creative expertise, and customer intimacy to provide customers with innovative and differentiated product offerings. A member of the S&P 500 Index, IFF has more than 6200 employees

working in 32 countries worldwide. For more information, please visit our website at www.iff.com; follow us on Twitter and LinkedIn.

About Together for Sustainability (TfS):

TfS AISBL is a joint initiative of chemical companies for sustainable supply chains. It was founded in 2011, to develop and implement a global program to assess, audit and improve sustainability practices within the supply chains of the chemical industry. Currently it has 18 member companies worldwide and intends to grow globally. For more information, visit www.tfs-initiative.com.

Source: IFF

Firmenich creates 2 new programmes for basic research

Marking its 120th Anniversary, Firmenich proudly announces the creation of two “Next Generation” Firmenich programs to advance basic Research in the areas of Neurosciences and Sustainability. Firmenich established these endowed initiatives at leading universities in its two chosen fields, Stanford University in the United States and the Ecole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland.

“Over the past 120 years, Firmenich reinvented itself era after era while staying true to its entrepreneurial spirit and constantly pursuing breakthroughs in innovation and research”, said Gilbert Ghostine, Firmenich CEO. “The creation of these two “Next Generation” Firmenich programs reconfirms the Group’s commitment and deep passion for driving fundamental science to its next frontier in critical areas for society, Neurosciences and Sustainability”.

The endowed Firmenich Next Generation Faculty Fund at Stanford aims at supporting successive early-career faculty members working in either the field of sensory neurosciences or sustainability, to assist them in pursuing ground-breaking research and/or clinical work. The Firmenich Next Generation Chair at EPFL will enable the school to recruit an assistant tenure track professor in neurosciences to strengthen EPFL’s world-leading neurosciences ecosystem based in its Geneva Campus.

“Firmenich combines a long family history and a visionary spirit. Like EPFL, it values an entrepreneurial culture and an emphasis on innovative research,” said Professor Gisou van der Goot, Dean of the School of Life Sciences, EPFL. “We are grateful for Firmenich’s commitment, which will allow us to attract a promising young neuroscientist to EPFL”, added Professor Gisou van der Goot.

In addition, Firmenich is supporting an exchange program in the area of Chemical Biology, which will support increased research collaborations between Stanford and EPFL, including research in neurosensory pathways related to olfaction and taste.

These endowments build on Firmenich’s two long-term Chairs in Organic Chemistry at MIT, established in 1979.

Firmenich is the world’s largest privately-owned company in the fragrance and flavor business. Founded in Geneva, Switzerland, in 1895, it has created many of the world’s best-known perfumes and flavors that billions of consumers enjoy each day. Its passion for smell and taste is at the heart of its success. It is renowned for its world-class research and creativity, as well as its thought leadership in sustainability and exceptional understanding of consumer trends. Each year, it invests 10% of its turnover in R&D, reflecting its continuous desire to understand, share and sublimate the best that nature has to offer. Firmenich had an annual turnover of 3.0 billion Swiss Francs at end June 2015.

Source: Firmenich

New ‘Natural’ Definition Will Go Beyond Organic Standards

The US Organic & Natural Health Association (Organic & Natural) has released the results of a consumer research study conducted as a first step in their initiative to set the standard for the

Market Insider

Essential Oils & Oleoresins – November 2015

term “natural.” The online research study of 1,005 U.S. consumers was conducted by Natural Marketing Institute (NMI) and found that 1 in 3 consumers do not make a quality distinction between the terms “natural” and “organic” and/or government regulation for products with such labels. Other findings from the study confirmed more confusion in the marketplace with the term “natural.” Common misconceptions include the belief that most vitamins come from natural sources and that “natural” means no pesticides are used. And while three-fourths of consumers perceive that organic foods must be at least 95 % free from synthetic additives, almost two-thirds of consumers expect the same standard from “natural” foods. Further, approximately half of the consumers surveyed believe that “natural” means the product is free of synthetic pesticides and are non-GMO, attributes that are unique characteristics of organic products.

With 46% of consumers surveyed believing that the U.S. government regulates the term “natural,” the study concluded that the organic industry should improve education for consumers regarding the differing attributes of organic and natural in order to elevate the status of organic. Furthermore, manufacturers producing natural products need to continue to clarify the meaning of natural so the term does not become diluted and lose significance among consumers.

In the research study, consumers indicated that they were more likely to use “natural” than “organic” foods; in fact, 60 % reported using organic less than once a week or not at all with more than a third using natural once a day or more. When it comes to meats labeled as “natural,” attributes of “no-added growth hormones” and “antibiotic-free” were of primary importance to consumers. “The overarching intent of this survey is to improve access to quality organic and truly natural food, products and services,” said Karen Howard, CEO and executive director of Organic & Natural. “Our goal is to support increased access through consumer research and education and we are now embarking on the development of a program that will create a clear, meaningful definition for natural foods, followed by a definition for natural supplements.”

Howard said based on study results Organic & Natural will require the definition of natural, like organic, to translate into 95 % of all ingredients qualifying as such, with explicit definition of ingredients qualifying for the 5 % exclusion. In the case of fortified food and dietary supplements, synthetic vitamins will qualify for the exclusion with the exception of synthetic vitamin E and D. Organic & Natural’s definition of “natural” will be comparable to the definition of “organic,” requiring that all natural labeled food be non-GMO and not contain artificial preservatives, colors, flavoring or sweeteners, but in some cases there will be additional criteria beyond organic standards. For example, beef will be held to organic standards and must be grass-fed and pastured to earn a natural designation. They will also promote quality standards for organic and natural by endorsing the ancillary certifications upon which consumers currently rely upon, including non-GMO and grass-fed beef.

When it comes to traceability, which directly relates to quality, Organic & Natural is taking a value-added approach, accepting documentation from recognized, demonstrated effective, seals and programs. This includes documentation of each company’s supply chain, including monitoring and testing of raw ingredients. In addition, they are partnering with a new analytical research and testing laboratory that will help to better understand and communicate adulteration, contamination, pesticide residues and identify potency for foods, agriculture and to measure parameters for health.

Organic & Natural’s next step is to develop a voluntary regulatory compliance and certification program for the term “natural” to be released during the first half of 2016, in conjunction with a consumer education campaign supporting transparency of product purchases. To view the complete study, “Consumer Insights on Organic and Natural” visit: <http://www.organicandnatural.org>.

Source: Organic & Natural

Report: Global Fragrances, Perfumes Market To Reach \$45.6B by 2018

A new report by Global Industry Analysts expects the global fragrances and perfumes market to reach about US\$45.6 billion by 2018, driven primarily by growth in under-penetrated

emerging markets and innovative product launches as well as relatively new growth areas such as men's fragrance. According to the research report 'Fragrances and Perfumes: A global strategic business report', developed regions have matured market profiles for fragrances and perfumes driven by the growing aging population, which uses perfumes and fragrances less than younger groups. However, the report added that the "feel good factor" associated with fragrances and perfumes coupled with increasing demand from young men and women, the men's fragrance segment, new product innovation and growing popularity of celebrity fragrances are the major factors triggering growth in the maturing markets. Meanwhile, growth from developing regions including Asia-Pacific and Latin America is expected to be very strong, which analysts predict will be the single largest factor propelling the fragrances market in the coming years.

By segment, women's fragrance has been traditionally leading the overall market and is expected to continue to generate strong demand over the coming years thanks to innovative products. Following the change in perceptions towards the importance of male grooming and smelling good, the men's fragrance segment is expected to exhibit greater growth than ever before. In addition, the growing importance of grooming among teenagers and young adults is also expected to boost market prospects in the coming years.

IFF Reports Q3 Results

International Flavors & Fragrances' (IFF) recent earnings reports an increase of 5.3% with net sales of \$765.1 million. Revenues from the flavor division rose 8% year over year at \$359.1 million, with 46.9% accounting for net sales. Fragrance revenues generated \$406 million, representing 53.1% of net sales. Revenues grew 6% year over year.

Geographically speaking, North America saw a 13% increase year over year. Revenues in Europe, Africa and the Middle East saw an 11% decrease year over year. Latin American revenues increased by 4% year over year; whereas Asia showed a 3% decrease. Source: IFF

El Nino adversely affects Guatemalan cardamom crop

El Nino is reported to be having a significant adverse effect on the Guatemalan cardamom crop – and Guatemala dominates the supply of cardamom (and so cardamom oil) to the international market. The continuing severe drought, coupled with thrip pest problems, is expected to result in a reduction of the crop of around 15% - which is certain to have an impact on prices.

Source: Treatts

Product & Market Notes

Essential oil production in North Africa - an overview

ESSENTIAL OIL PRODUCTION IN NORTH AFRICA – AN OVERVIEW

North Africa is a well established production region for essential oils and extracts for the flavour and fragrances industry. Egypt, Tunisia and Morocco are the main production centers. Production is based on both wild harvesting and cultivated plants (though the industry is based almost exclusively on cultivated production in Egypt). Key products from the region are: geranium oil, jasmine concrete; neroli oil, rosemary oil, myrtle oil, and cedar atlas oil.

1. Egypt¹

Egypt is a major and well established producer of essential oils to the international flavours and fragrances markets. Whilst it produces a very wide range of essential oils and extracts, with total exports valued at around US\$40 million, between 40 to 50% of total exports is accounted for by geranium, with jasmine accounting for a further 20%. Two thirds of total production is therefore accounted for by 2 products, and Egypt has an important position in the global supply of both these ingredients. In addition to these 2 products, Egypt is also an important producer of Neroli, supplying around 15% (around 350 kgs) of global production.

The essential oil industry in Egypt is based on intensive cultivated and irrigated crop production in the Nile valley.

¹ Based on information taken from: Egyptian Essential Oils Under Revolution?. Hussein Fakhry. IFEAT 2014

Egyptian production of aromatic raw materials, 2013.

Product	Volume	Value US\$
Geranium	150 to 170 tons	15 to 17,000,000
Jasmine concrete	3.5 tons	6,500,000
Cumin	15 to 20 tons	2,600,000
Violet leaf concrete	1.5 tons	1,650,000
Onion	2 tons	1,600,000
German Chamomile	1.5 tons	1,315,000
Petitgrain mandarin	25 tons	1,125,000
Neroli	350 kg	925,000
Sweet marjoram	12 tons	900,000
Sweet basil	8 tons	700,000
Garlic	1.5 tons	400,000
Aniseed	3 tons	150,000
Others		2 to 3,000,000
TOTAL		35 to 38,000,000

- Geranium oil: Egypt and China are the 2 dominant suppliers to the world market. Prices for geranium oil have been highly volatile in the past, rising to well over US\$200/kg over the period 2010/2011.
- Jasmine absolute: Egypt and India are the 2 largest producers. Prices have been rising consistently over the past 5 years, to above \$4,000/kg.
- German chamomile oil: Egypt is an important producer. Yields are low and prices are high, in excess of \$1,000/kg.
- Neroli oil: volumes are small, with prices in the range \$2,500/kg
- Sweet basil: Egyptian basil, linalol type
- Onion oil: production varies, depending on the strength of demand for onion supply to the dehydration sector which is the primary market for fresh onions.

2. Tunisia²

The essential oil sector in Tunisia is based partly on cultivated crop production and partly on collection of wild harvested plant material from forest areas (the dominant supply for rosemary and myrtle).

Harvesting of forest areas is managed through an auction system. Most areas are controlled by the Tunisian Department of Forests, and they auction off areas (lots) on an annual basis for harvesting. By auctioning different lots each year they manage the harvesting pressure on individual areas. Some areas are under private control, and the annual harvesting rights to these areas are either auctioned off through a system of private auctions, or by direct negotiation with interested parties. Specialized distillers buy freshly harvested plant material, distill the plant material, and sell the oil produced to the owner of the lot.

The main essential oils produced by Tunisia are Neroli (from the bitter orange flower, *Citrus aurantium*), rosemary and myrtle.

Neroli

The bitter orange gives 2 different product groups:

- distillation of the flowers yields neroli oil, and orange flower water, and extraction of the orange flower water gives an orange flower water absolute;
- extraction of the flowers gives bitter orange flower concrete, and further extraction yields bitter orange flower absolute.

² based on information provided in: The Arab Spring and Tunisia's Essential Oils Industry. Chedly Belkiodja. IFEAT 2014

The bitter orange is cultivated by over a thousand small farmers. The main center of production is in the north east, around the Cap Bon peninsular. As with many aromatic crops in many countries, there is an increasing problem with securing the labour to harvest the flowers. Neroli relies on seasonal harvesters coming from other regions in Tunisia, but as other opportunities for employment arise closer to home, the supply of labour for harvesting the flowers declines, despite increases in payments for harvesting.

Exports of neroli over the period 2008 to 2013 are given in the Table below.

Tunisian exports of Neroli (kgs)

	2008	2009	2010	2011	2012	2013
Exports of Neroli, kgs	617	584	843	1,104	811	770

Rosemary and Myrtle

Rosemary and myrtle grow in the wild, across extensive natural areas and are harvested from the wild. The main areas of production are in the west (north west and west. Rosemary is found across an estimated 350,000 ha, and myrtle on an estimated 40,000 ha. The Tunisian state controls large areas, and puts up lots in the range 50 to 500 ha to auction off the harvesting rights; small private lots, in the range 50 to 500 ha, are also auctioned. Production and export of both crops has fallen since the revolution in Tunisia (2011) despite significant increases in prices.

Tunisian exports of Rosemary (tons)

	2008	2009	2010	2011	2012	2013
Exports of Rosemary, tons	88.43	81.85	73.91	65.23	68.12	70.43
Rosemary oil price, €/kg	19.87	20.06	21.13	23.52	23.54	27.03

Tunisian exports of Myrtle oil (tons)

	2008	2009	2010	2011	2012	2013
Exports of myrtle oil, tons	2.34	2.51	3.29	3.11	2.41	2.68
Myrtle oil price, €/kg	65.11	66.84	74.93	85.00	85.02	89.96

3. Morocco³

Morocco has a large and well established aromatic and medicinal plant production sector, involving both wild harvesting and cultivated plant production. Over 280 plant species are exploited, with a significant export of dried plant material. Over 30 species are used for the production of essential oils and other extracts for the flavours and fragrance industry.

Wild harvested plants account for almost all (98%) of medicinal and aromatic plant production. Important plants for the flavours and fragrances industry include thyme, rosemary, carob, pennyroyal, artemisia, myrtle, oregano, laurel and argan. The plants grow widely on state or collective lands, and their exploitation is managed through concessions by the Ministry of the Interior, and the Forest Administration. Cultivated plants include seed crops (coriander, cumin, fennel, anise), leaf crops (verbena, mint, parsley), and flowers (bitter orange, jasmine, rose, tuberose, chamomile) and others (saffron).

³ based on information from: An Overview of the Moroccan Essential Oils Sector. Jalal Charaf. IFEAT 2014.

Wild harvested plants

Production and processing is organized through cooperatives who are granted exploitation rights of forest areas, and private companies (producers, processors, traders) who purchase the raw plant material from the cooperatives. The major wild plants harvested are: carob (58%), rosemary (17%), thyme (13%), and lichen (8%). Others include: argan, wild chamomile, myrtle, cedar atlas, cactus, pennyroyal, artemisia and *Ammi visnaga*.

Estimated area and production of main wild harvested crops

Plant	Area (ha)	Production (tons)
Carob tree	60,500	693
Rosemary	62,000	14,000
Lichen	1,800	60
Thyme	52,400	330
Acacia flowers	135	105

Cultivated plants

Cultivation is both by small farmers who sell their production to processing companies, and integrated production and processing companies, who own both the field production and the processing units. The major cultivated crops include: garlic, anise, coriander, spearmint, lavender, geranium, bitter orange, jasmine, saffron, rose (centifolia and damascene), iris pallida, mimosa, and grapefruit.

Estimated area and production of main cultivated crops

Plant	Area (ha)	Production (tons)
Garlic	140	990
Anise	1,200	85
Coriander	4,700	6,750
Cumin	1,850	435
Fennel	450	1,075
Fenugreek	1,125	750
Sesame	1,610	1,370
Jasmin	30	60
Lavandin	2,000	1,600
Verbena	55	860
Bitter orange	240	1,300
Rosa centifolia	40	120
Rosa damascena	30	100

Estimated annual essential oil & concrete production volumes

Product	Volume (kgs)	Price €/kg
Neroli oil	1,300	2,300
Rosa damascena oil	50	9,000
Rose damascene concrete	1,500	850
Jasmine concrete	250	1,800
Rosa centifolia concrete	200	1,800
Mimosa concrete	2,500	120
Cedar atlas oil	40,000	12
Myrtle oil	1,300	90
Orange flower concrete	1,200	1,700
Rosemary oil	30,000	40
Wild chamomile oil	4,000	450
Pennyroyal oil	8,000	10

Price Information

Conventional essential oils

PLEASE REMEMBER THAT THESE ARE ONLY PRICE INDICATIONS.

Price indications collected from the markets are given for a range of essential oils, below. The oils are grouped *for convenience only* into Spice Oils, Seed Oils, Citrus Oils, Herb Oils and Perfumery Oils. Prices are wholesale for quantities of 25kg or more unless otherwise stated.

Spice Oils

Product	Origin/Grade	Prices per KG (US\$)
Clove bud	Indonesian	\$21/kg 200kg lots
	Indian	\$84/kg 1 kg lots
	Madagascan	\$75/kg 1 kg lots
Clove stem	Indonesian	\$15/kg container
	India	\$50/kg
	Madagascar	\$36/kg 200 kg lots
Clove leaf	Indonesian min. 73%	\$11.00/kg, container
	Indonesian min. 80%	\$12.50/kg
	Indonesian min. 82%	\$13/kg
	Madagascan	\$17/kg
	Indonesian	\$46/kg
	Indonesia	\$18/kg container
Cinnamon bark	Sri Lankan 60/65%	n/a
Cinnamon leaf	Sri Lankan	\$70/kg 1 kg lots
	India	\$20/kg
Cassia bark	China	\$35/kg; \$70 1 kg lots
Black pepper	Sri Lankan	\$218/kg 1 kg lots
	Indian	\$125/kg; \$195 1 kg lots
Nutmeg	Indonesian (myristicin 7%)	\$30/kg
	Indonesian(myristicin 2%)	\$27/kg
	Indonesian (safrole free)	\$62/kg
Ginger	Chinese	\$105/kg
	Indonesia	\$95/kg
	Indian	\$80/kg
	Indonesia (red)	\$98/kg
Pimento leaf	Jamaican	\$140/kg
	Jamaican	\$90 container
Pimento berry	Jamaican	€210/kg
	Jamaican	\$154 1 tonne lots
Cardamom	Guatemala	\$185/kg container
		\$210/kg spot

Spice Seed Oils

Product	Origin/Grade	Prices per KG
Aniseed	China	\$13-16 CIF NW Europe; \$75/kg 1 kg lots
	India	\$25/kg
Star Anise	India	\$120/kg
Coriander seed	Russian	\$200/kg
Coriander herb	Russian	\$100/kg drum

Market Insider

Essential Oils & Oleoresins – November 2015

Product	Origin/Grade	Prices per KG
Cumin seed	Egypt	\$285/kg 1 kg lots

Citrus Oils

Product	Origin/Grade	Prices per KG
Orange (sweet)	Brazilian	\$16/kg; \$30/kg 1 kg lots
	Italy (b/orange c/pressed)	\$33/kg
	Brazil (pera)	\$7/kg container
Orange (bitter)	Italian (c/pressed)	\$45/kg
Bergamot oil	Ivory Coast/Italy	\$80/kg; \$135/kg 1 kg lots
Lemon	Italian	\$58/kg 1 kg lots
	Italian (c/pressed)	\$35
	Argentina	\$55-\$58/kg container
	Brazil	\$55/kg
Lime (distilled)	Italian	n/a
	Mexico/Peru	\$46/kg container; \$62/kg
Lime (cold pressed)		\$25/kg
Mandarin (red)	Italy	\$80/kg
Grapefruit (pink)	Argentina	\$42/kg; \$50/kg 1 kg lots
Grapefruit (white)	France	\$40/kg

Herb Oils

Product	Origin/Grade	Prices per KG
Basil	Comores	\$125/kg
	Egypt	\$82/kg; \$150/kg 1 kg lots
Lavender	Bulgaria	\$96/kg
	French	\$250/kg
	English	\$200/kg
	Russia	\$95/kg drum
Lavandin	French Grosso	\$30/kg
Spike Lavender	Spain	\$110/kg
Mints	Indian piperita	\$27/kg
	India, mentha arvensis crude, L-menthol 72%	\$13/kg
Menthol	Indian, bold crystals	\$19/kg
	Indian, medium crystals	\$15/kg
	China	\$18/kg
Peppermint menthofuran 3%	China	\$23.50/kg
Peppermint	China	\$15/kg container
Peppermint dementholised	Indian	\$13/kg
Menthone 80/20	Indian	\$16/kg
Menthone 90/10	Indian	\$19/kg
Spearmint 60% carvone	China	\$23/kg
Chamomile (German)	German blue	\$670/kg
	Morocco (wild)	\$450/kg
	Egypt (blue)	\$1,000/kg
Chamomile (Roman)	UK	\$1000/kg
Sage	Croatia	\$130/kg
Rosemary	Portugal/Spain/Tunisia	\$55
	Spain	\$68/kg drum
	France	\$78
Marjoram	Spain (wild)	\$210/kg 1 kg lots
Thyme	Spain	\$67/kg; \$85 1 kg lots

Perfumery Oils

Product	Origin/Grade	Prices per KG
Eucalyptus globulus & other high cineole types	China	\$13/kg container; \$35/kg 1 kg lots
	Australian	\$44/kg
	China	\$38/kg 1kg lots
	Madagascar	\$31/kg
Eucalyptus citriodora	China	\$49/kg 1 kg lots
	Madagascar	\$25/kg
Litsea cubeba	Spain	\$22/kg
	China	\$21/kg container
Ylang ylang	Comores: Extra S	n/a
	Comores : Première	\$225/kg
	Comores : Deuxième	\$180/kg
	Comores : Troisième	\$95/kg
	Comores: Complet	\$150/kg 1 kg lots
	Madagascar (grade II)	\$80/kg
Ylang (cananga)	Indonesia	\$61/kg 1 ton lots
Patchouli - Indonesia	Sulawesi min 26% pa	\$48/kg
	Sulawesi min 30% pa	\$51/kg
	Sulawesi min 30% pa, light	\$52/kg
	Sumatra min 30% pa	\$62/kg
	Sumatra min 32% pa	\$67/kg
	Sumatra min 34% pa	\$72/kg
	Sumatra min 30% pa, light	\$64/kg
Rose	Bulgaria	\$5,750/kg
Geranium	Egypt	\$125/kg
	Egypt	\$120/kg
	China	\$155/kg
	Madagascar	\$310/kg
Rose Geranium	Madagascar/France	\$225/kg
Niaouli (Cineole 1,8) (Malaleuca quinquenervia type I)	Madagascar	\$16/kg; \$60/kg 1 kg lots
Niaouli Viridiflora (Malaleuca viridiflora type II)	Madagascar	\$20/kg
Petitgrain	Paraguay	\$58/kg drum; \$98/kg 1 kg lots
Sandalwood	India	\$2,900/kg
	East Indies	\$2,500/kg
	Australian	\$2,025/kg
Cedarwood	USA	\$52/kg
	China	\$13/kg container; \$50/kg 1 kg lots
Frankincense	Somalia/France	\$270/kg
Citronella	Chinese	\$18/kg container; \$23/kg; \$53 1 kg lots
	Sri Lanka	\$40/kg container
	Indonesia	\$16/kg
	Indian	\$18/kg
Lemongrass	Indian	\$16/kg container; \$37/kg 1 kg lots
	Madagascar (C. giganteus)	\$55/kg
Palmarosa	Indian	\$38/kg; \$130/kg 1 kg lots
Vetiver	Indonesian	\$180/kg; \$380/kg 1 kg lots
	Indonesian	\$190 rectified
	Indonesian, molecular dist.	\$225/kg
Tea Tree	Australia	\$44/kg; \$90/kg 1 kg lots

Market Insider

Essential Oils & Oleoresins – November 2015

Product	Origin/Grade	Prices per KG
	Australia, lemon scented	\$140/kg
Guaiacwood	Paraguay	\$25/kg drum
Fennel, bitter	Spain	\$97/kg
Juniperberry	India	\$120/kg; \$260/kg 1 kg lots
Myrrh	India (extract)	\$133/kg
	India (distilled)	\$270/kg; \$395/kg 1 kg lots

Price Information

Organic essential oils

PLEASE REMEMBER THAT THESE ARE ONLY PRICE INDICATIONS.

Price indications collected from the markets are given for a range of essential oils, below. The oils are grouped *for convenience only* into Spice Oils, Seed Oils, Citrus Oils, Herb Oils and Perfumery Oils. Prices are wholesale for quantities of 25kg or more unless otherwise stated.

Spice Oils

Product	Origin/Grade	Prices per KG (US\$)
Clove bud	Indian	\$150/kg
Clove leaf	Indian	\$75/kg
Cinnamon bark	Sri Lankan	\$420/kg
Cinnamon leaf	Sri Lankan	\$110/kg
Nutmeg	Indonesian	\$172/kg
Ginger		\$270/kg
	India	\$170/kg drum

Spice Seed Oils

Product	Origin/Grade	Prices per KG
Star Anise	China	\$180/kg
Cumin seed	Egypt	\$90/kg

Citrus Oils

Product	Origin/Grade	Prices per KG
Orange (sweet)	Italian (c/pressed)	\$36/kg
Orange (bitter)	Italian (c/pressed)	\$135/kg
Bergamot	Italy (c/pressed)	\$195/kg
Lemon	Italian (c/pressed)	\$60/kg
	Italian (c/pressed)	\$71/kg
	Argentina	\$75
Mandarin (red)	Italy	\$225/kg
Mandarin (green)	Italy	\$187/kg
Clementine	Italy	\$120/kg
Petitgrain (C. aurantium)	Paraguay	\$110/kg

Herb Oils

Product	Origin/Grade	Prices per KG
Basil	Egypt	\$187/kg
	India	n/a
Lavender	France	\$210/kg
Lavandin	French Grosso	\$55/kg
Mint, peppermint	USA	\$90/kg
	India	\$65/kg drum
Mint, Cornmint	India, mentha arvensis	\$52/kg
Mint, spearmint, M. spicata	USA	\$112/kg
Chamomile (German)	Nepal	\$780/kg
	India	\$1,250/kg

Product	Origin/Grade	Prices per KG
Chamomile (Roman)	Hungary	\$1,500/kg
Sage	Croatia	\$240/kg
Rosemary	Spain	\$42/kg
	Tunisia	\$25/kg
Marjoram	Spain	\$330/kg
Thyme	Hungary	\$300/kg
	India	\$65/kg
Fennel	India	130/kg

Perfumery Oils

Product	Origin/Grade	Prices per KG
Eucalyptus radiata & other high cineole types	China	\$64/kg
E. globulus	India	\$45/kg (60%)
	India	\$50/kg (80%)
E. polybractea	Australian	\$135/kg
E. smithii	South Africa	\$75/kg
Eucalyptus citriodora	Brazil	\$52/kg
	India	46/kg
Litsea cubeba	Spain	\$35/kg
Ylang ylang	Comores: I	\$225/kg
	Comores : II	\$180/kg
	Comores : III	\$210/kg
	Comores: Complet	\$330/kg
Patchouli	Indonesia	\$175/kg;
Geranium	Egypt	\$375/kg 1 kg lots
Sandalwood	Sri Lanka	\$1,950/kg 1 kg lots
Cedarwood	USA	\$63/kg
Naouli		\$97/kg
Ravinsara	Madagascar	\$275/kg 10 kg lots
Frankincense	Somalia/France	\$525/kg 1 kg lots
	India (B. serrata)	\$78/kg drum
Pine (P. silvestris)	Hungary	\$190/kg
Citronella	Sri Lanka	\$100/kg
	India	\$63/kg
Lemongrass	Nepal	\$75/kg
Palmarosa		\$80/kg
	India	\$70/kg
Vetiver	Indonesian	\$450/kg 1 kg lots
	Indian	\$350/kg
Tea Tree	Australia	\$90/kg;
	Australia, lemon scented	\$225/kg
Fennel, sweet	Bulgaria	\$150/kg
Juniperberry	India	\$225/kg
Myrrh	Africa	\$1,800/kg

Suppliers of Equipment

Suppliers to the African market

The distillation and extraction industry in Africa is relatively small and localised outside of the North African centers of Egypt and Morocco, and Southern Africa (South Africa, Swaziland). New entrants to the industry can find it hard to identify suppliers of equipment (stills, condensers, extractor vessels etc) in stainless steel, steam boilers, and other necessary materials (drums, jugs, filter papers etc).

The development of the industry in Africa would benefit greatly if there was greater sharing of information on the location of suppliers. New entrants would find it easier to identify necessary suppliers, and the concentration of orders on particular suppliers would encourage the development of skills and expertise – this is particularly necessary in the areas of fabrication of stainless steel vessels and condensers.

Some contacts of companies involved in the manufacture of distillation/extraction equipment or the capability to do so (primarily the capability to work with stainless steel) or supply of materials based in East Africa are given below.

The Newsletter would welcome information from Readers on other suppliers of relevant equipment and materials from all regions of Africa, so that the listing can be expanded. Please send any information to marketinsider@intracen.org

The contacts are provided as a service only. NO RECOMMENDATION IS IMPLIED.

1. MANUFACTURE OF STAINLESS STEEL DISTILLATION EQUIPMENT:

KENYA:

ASL – Heavy Fabrication Division
Ramco Industrial Park
Mombassa Road
PO Box 18639-00500
Nairobi. Kenya
Tel: +254 20 821567/820296/820394
Fax: +254 20 820169/651893
bm@heavyfab.co.ke
Attn: Mr Ve Balamurali, General Manager

Warren Enterprises Ltd
PO Box 8251
Nairobi. Kenya
Tel: +254 20 8561 932/3/4
Fax: +254 20 8561 013
Attn: Mr S Ramaswamy, Managing Director

Morris Steel & Company
Mogadishu Road
PO Box 18310
Nairobi. Kenya
Tel: +254 20 533 627
Attn: General Manager

UGANDA:

Specialised Welding Services (previously Kasise Kleinsmedie Uganda Ltd)

Jinja Road, Plot 96
PO Box 40115
Nakawa Vocational Training Center
Kampala
Uganda
Tel: +256 (776) 405060/405070/405080
+256 (772) 227 003 (Samantha Moray)
sam.moray@sws.co.ug
Attn: Samantha Moray, General Manager
www.sws.co.ug

MADAGASCAR:

Societe Aris Trading
Lot VB 81X Ambatoroka
101-Antananarivo. Madagascar
Tel: +261 20 24 264 96
Fax: +261 20 22 290 24
aristrading@freenet.mg
Attn: Mr James Davidson

ATICOM
Lot IT 91A Itaosy
102 Antananarivo – Atsimondrano. Madagascar
Tel: +261 32 07 744 34
[orasatajoso@yahoo.fr](mailto:orasatajoso@yahoofr)
Attn: Josoa Andriamorasata

SOUTH AFRICA:

EDESA (Essential Distillation Equipment)
PO Box 123
Riebeeck Kasteel 7306
Western Cape. South Africa
Tel: +27 (82) 334 3324
fax: 0866 088508
info@edesa.co.za
werner.ede@vodamail.co.za
www.edesa.co.za
www.stillpure.co.za
Skype: werner.bester2
Attn: Werner Bester
Manufacture of distillation equipment and sales of used equipment.

BENCO PLANT & ENGINEERING (PTY) Ltd
159 Van Eeden Crescent, Rosslyn, Karin Park
P O Box 59. Pretoria, Gauteng. South Africa
Tel: +27 (12) 541-0398
Fax: +27 (12) 541-0399
Attn: Sloam Durbach
Manufacturer of distillation equipment and steam boilers

POWERSAVE
PO Box 699
Hilton 3245. South Africa
Tel (cell): +27 82 493 8670
Fax: +27 33 34 33 755

Attn: Greg Rowe
gregrowe@telcomsa.net
Manufacture of steam distillation plants

Henry S Komar & Associates CC
2 Hebel Road, Roodepoort, Gauteng, South Africa
Postal address: PO Box 994, Honeydew 2040, South Africa
Tel: +27 11 760 2718
Fax: +27 11 760 1079
Attn: Stan Kumar, CEO
info@komar.co.za; sales@komar.co.za
www.komar.co.za

Manufacture of stainless steel distillation and processing equipment. Also sales of secondhand equipment.

THE PROCESS TEAM CC
37 Nelson Road, Amanzimtoti
Kwa-Zulu Natal 4126. South Africa
Attn: Peter Myburg

Design and manufacture of stainless steel distillation equipment.

2. SUPPLIERS OF STEAM BOILERS

MADAGASCAR

ARTICOM
Lot IT 91A Itaosy
102 Antananarivo – Atsimondrano. Madagascar
Tel: +261 32 07 744 34
morasatajoso@yaho.fr
Attn: Joso Andriamorasata

ARTICOM make a simple, low pressure, wood fired steam boiler.

KENYA:

Industrial Boiler Products Co. Ltd.
Kampala Road, Industrial Area
Nairobi, Kenya.
+254 733 700175
mail@industrialboilerproducts.co.ke
peter.fernandes@industrialboilerproducts.co.ke
Peter Fernandes
www.ibp.co.ke
Indian manufactured steam boilers; biomass fired.

Boiler Consortium Africa (BCA) Ltd
PO Box 60780. Nairobi. Kenya
Tel: +254 20 557837/ 536793/ 4349310
Tel: +254 722 750131/ 703511/
Fax: +254 20 735 331177
Barry Corlines
info@boilersafrica.com
www.boilersafrica.com

BCA design, manufacture and commission boilers, included wood fired steam boilers, and are agents for Riello in East Africa.

SOUTH AFRICA:

Combustion Technology South Africa
PO Box 30047. Tokai, 7966 Cape Town, South Africa
Tel: +27 21 715 3171
Fax: +27 21 715 6297
www.combustiontechnology.co.za

Combustion Technology are the exclusive Southern African distributors of Riello burners and Garioni Naval Boilers.

BENCO PLANT & ENGINEERING (PTY) Ltd
159 Van Eeden Crescent, Rosslyn, Karin Park
P O Box 59. Pretoria, Gauteng. South Africa
Tel: +27 (12) 541-0398
Fax: +27 (12) 541-0399
Attn: Sloam Durbach
Manufacturer of distillation equipment and steam boilers

CAPE BOILER
16 Natal Street, Parden Island, Cape Town, South Africa
Tel: +27 21 511 6652
Fax: +27 511 4415
Attn: Mr Nic Kellerman

INDIA:

Firetech Boilers Pvt Ltd
FIRETECH HOUSE, No.211, 2nd Cross, 38th Main,
B.T.M Layout, 2nd Stage, Bangalore 560 068. India
Tel: +91-80-6683686; Fax: +91-80-6683921
Email: firetech@vsnl.net
Manufacture of wood fired steam boilers. Indian manufacturer, but has supplied boilers to Africa.

AUSTRIA:

Binder GMBH
Mitterdorferstr. 5
8572 Barnbach
Austria
Email: office@binder-gmbh.at
Tel: +43 3142 22544-0
Fax: +43 3142 22544-16
www.binder-gmbh.at

Binder Agents in UK:
Wood Energy Ltd, Severn House, 1-4 Fountain Court, Bradley Stoke, Bristol. BS32 4LA
www.woodenergyltd.co.uk

Kohlbach Group
Grazer StraBe 23
A-9400 Wolfsberg
Austria
Email: office@kohlbach.at
Tel: +43 4352 2157-0
Fax: +43 4352 2157-290
www.kohlbach.at

USA:

Hurst Boiler & Welding Company, Inc.
100 Boilermaker Lane
Coolidge, GA 31738-0530
USA
Phone: +1 229-346-3545
Fax: +1 229-346-3874
Email: info@hurstboiler.com
www.hurstboiler.com

3. SUPPLIERS OF MATERIALS AND EQUIPMENT

(a) Forklift trucks/pallet trucks

Forktruck Solutions
16 Kiewiet Close, Okavango Park, Brackenfel 7560, Cape Town. South Africa
Postal address: PO Box 3221, Durbanville 7551. South Africa
Tel: +27 21 982 1142 and +27 21 981 2649;
Cell: +27 83 2848 557
Fax: +27 21 982 1141
Attn: Dirk van der Westhuizen
dirk@forktrucksolutions.co.za
www.forktrucksolutions.co.za

Sales and rental of new and used forklift trucks. Also pallet jacks/stackers and range of other warehouse equipment.

(b) Hoists and lifting equipment

Blue Cranes,
Crane House, 10 Mansell Road, Killarney Gardens, Minerton, Cape Town, South Africa
Postal address: PO Box 702, Melkbosstrand 7437. South Africa
Tel: +27 21 556 0498/9
Fax: +27 21 556 0486
Attn: Mr Kobus Steyn
joseph@bluecranes.co.za
www.bluecranes.co.za

Manufactures full range of hoists, beam girder cranes and lifting equipment. Sole supplier of Liftket electric chain hoists and wire rope hoist units. Repairs and spare parts supply service. Supply of associated slings, chains, blocks etc.

(c) Essential oil drums:

Greif supply a range of steel and coated drums, and are present in 45 countries around the world.

Greif Kenya Ltd
Box9036 - Unga Street
Shimanzi – Mombasa. Kenya
Tel: +254 41 2495591
Fax: +254 41 2494038
pascal.wanyonyi@greif.co.ke
Attn: Pascal Wanyonyi

Greif Nigeria Ltd
Apapa, Nigeria
Phone +234 (01) 587 0866
Fax +234 (01) 587 3084
vanleer@linkserve.com.ng
Attn: Olukunle Obadina,

Greif South Africa Ltd
Vanderbijlpark, South Africa
Phone +27 (0) 16 930 1100
Fax +27 (0) 16 930 1106
carl.williams@grief.com
Attn: Carl Williams
Website: www.greif.co.za

Greif Mozambique
Maputo, Mozambique
Phone +258 21 720153
Fax +258 21 720724
vanleer@vironn.com

Greif Egypt
Cairo, Egypt
Phone +20 2588 1110
Fax +20 2593 3889
E-mail: koracons@link.com.eg
Attn: Ayman Korra

Greif Algeria
Arzew, Algeria
Phone + 213 41473723 / + 213 41473724
Fax + 213 41473730
Mohamed.Gherbi@Greif.com
Attn: Mohamed Gherbi

China:

Guangzhou New Jinrong Coopery Co. Ltd.
No.7 Huancui xi road
Cuishanhu new district
Kaiping
Guangdong, China
Ms. Lucinda Lux
Tel : +86 159 14338971,+86 18620468156, 0750-2889978
Fax: +86 7502889978
Email: newjinrong@163.com; paul_chew@163.com
SKYPE: xpyllj74

India:

Al-Can Exports Pvt Ltd
Sheetal Industrial Estate, Kashimira Road,
Bhayander East District,
Thane 401 105
India.
Tel: +91 22 2819 3122
Fax: +91 22 2814 2477
Email: info@alcanexports.com
Large range of aluminium flasks and bottles.

France:

Tournaire SA

70, Route de la Paoute

Le Plan.

BP 71004

06131 Grasse Cedex

France

Tel: +33 493 09 34 34

Fax: +33 493 09 34 00

Email: tournaire@tournaire.fr

Tournaire do a very wide range of aluminium bottles.

(d) Secondhand/used equipment

Secondhand equipment, particularly stills and condensers, can represent very good value. Details are given for 2 companies which have experience of shipping worldwide, and sometimes have distillation equipment in stock.

Perry Process Equipment Ltd

Station Road

Aycliffe Business Park

Newton Aycliffe

County Durham. DL5 6EQ. UK

Phone: +44 1325 315111

Fax: +44 1325 301496

info@perryprocess.co.uk

Website: www.perryprocess.co.uk

Perry Process Equipment is the European headquarters of the Perry Group of companies, which has operations around the world and is one of the worlds largest dealers in secondhand process equipment.

Centriplant Ltd

Littlemead Industrial Estate

Alfold Road

Cranleigh

Surrey. GU6 8ND

UK

Phone: +44 (01483) 271507

Fax: +44 (01483) 278183

Contact: Mark Williams markw@centriplant.co.uk

Website: www.centriplant.co.uk

Centriplant has distillation plants on an occasional basis, but always have a range of stainless steel tanks, and bottling/packing lines that could also be of interest to producers.

Events Calendar

Fi Europe & Ni 2015

1-3 December 2015. Paris, France

www.foodingredientsglobal.com/en/europe/home

7th Annual Bio-Based & Sustainable Products Summit

13-14 January 2016. San Diego, USA

www.infocastinc.com/events/biobased-chemicals

Cosme Tokyo 2016

20-22 January 2016. Tokyo, Japan

www.cosmetokyo.jp/en/ex

Cosme Tech 2016

20-22 January 2016. Tokyo, Japan

www.cosme-i.jp/en

International Spice Conference

21-24 January 2016. Goa, India

www.internationalspiceconference.com

American Spice Trade Association Annual Meeting

10-13 April 2016. Scottsdale, AZ, USA

www.astaspice.org

Beauty Eurasia 2016

21-23 April 2016. Istanbul, Turkey

www.beauty-events.com/Beauty-Eurasia

Cosmobeaute Vietnam

21-23 April 2016. Saigon, Vietnam

www.beauty-events.com/Cosmobeaute-Vietnam

World Perfumery Congress 2016

13-15 June 2016. Florida, USA

<http://wpc.perfumerflavorist.com>

Cosmobeaute Asia

18-21 July 2016. Kuala Lumpur, Malaysia

www.beauty-events.com/Cosmobeaute-Asia

BiobasedWorld Tradeshow

15-16 February 2017. Cologne, Germany

www.boiobasedworld.de/en/home.html