

VCO Industry in the Philippines

Presented at the Coordination Meeting – 1st TWG Meeting on the
Assessment of Organic Certification in the Coconut Oil Value Chain
25 November 2019
Makati Diamond Residences, Makati City.

VIRGIN COCONUT OIL

Philippine National Standard

PNS/BAFPS 22:2007

ICS 67.200.10

Scope: This standard applies to virgin coconut oil in a state for human consumption.

3.1.3

virgin coconut oil (VCO)

oil obtained from the fresh, mature kernel of the coconut by mechanical or natural means

with or without the use of heat, without undergoing chemical refining, bleaching or deodorizing, and which does not lead to the alteration of the nature of the oil.

Virgin coconut oil is an oil which is suitable for consumption without the need for further processing.

Virgin coconut oil (VCO) consists mainly of medium chain triglycerides, which are resistant to peroxidation. The saturated fatty acids in VCO are distinct from animal fats, the latter consisting mainly of long chain saturated fatty acids.

Philippine National Standards for VCO

Property Requirements

Properties	Maximum Level
% Moisture content (w/w)	≤ 0.10
% Matter volatile at 120 °C (w/w)	0.12 - 0.20
% Free fatty acids (expressed as lauric acid)	0.2
Peroxide value, meq/kg oil	3.0
Food additives	None Permitted

Fatty Acid Composition

Composition	Range (%)
C6:0 Caproic acid	0.1—0.7
C8:0 Caprylic acid	4.0—10.0
C10:0 Capric acid	4.0—8.0
C12:0 Lauric acid	45.1—56.0
C14:0 Myristic acid	16.0—21.0
C16:0 Palmitic acid	7.5—10.2
C18:0 Stearic acid	2.0—5.0
C18:1 Oleic acid	5.0—10.0
C18:2 Linoleic	1.0—2.5

PNS Section V. Production Processes

- ▶ Producers/processors shall state in their product label sufficient information to identify the process used in the production of virgin coconut oil, such as:
 1. traditional process (latik)
 2. fermentation with heat
 3. fermentation without heat
 4. centrifuge process
 5. expelling process
 6. or equivalent process which ensures that the product conforms with the definition and chemical and physical characteristics in the Philippine Virgin Coconut Oil Standards herein adopted.



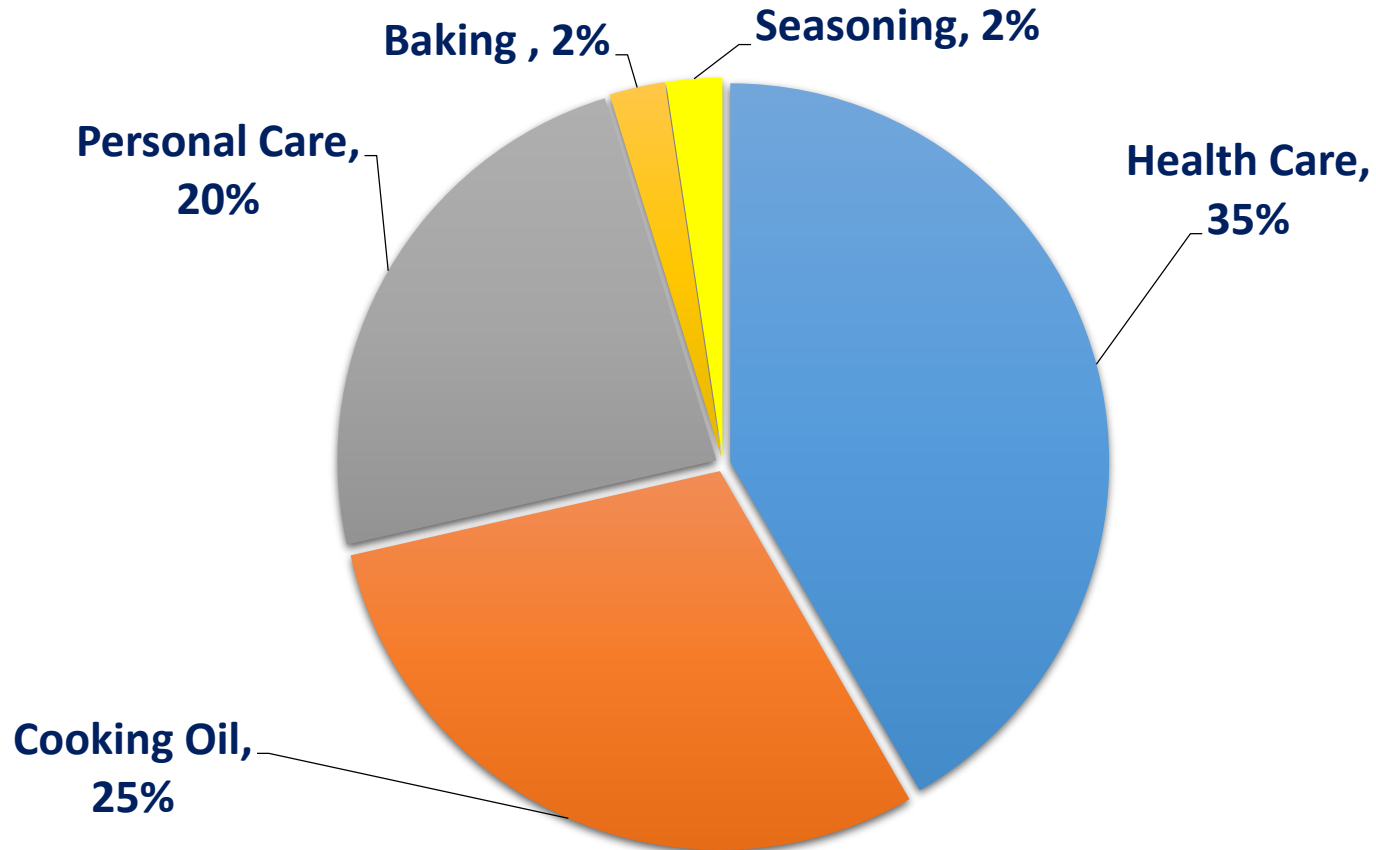
As of 2018,
130 VCO processors (micro,
SMEs, and large companies)
were registered with the
PCA

Source: PCA Coconut Industry Trade
Directory

Source: Marco Reyes, VCO Philippines, VCO : Overview,
Processes, Market Drivers , and Outlook - Presentation
during the 1st World Coconut Congress 2018



Uses and applications of VCO



Source: Marco Reyes, VCO Philippines, VCO : Overview, Processes, Market Drivers , and Outlook - Presentation during the 1st World Coconut Congress 2018

Health Benefits of Virgin Coconut Oil (VCO)



BRAIN

Ketone bodies are alternative source of fuel for the brain which:

- Boosts cognitive function
- Used for the management of Alzheimer's disease and epilepsy

ANTIOXIDANT

Rich in **Phenolic Compounds:** Caffeic Acid, p-coumaric acid, ferulic acid, catechin

ANTI-MICROBIAL AGENT

C12 Lauric is metabolized into **Monolaurin:**

- Anti-viral, anti-fungal, anti-protzoal, anti-bacterial
- Against bacteria: Broad spectrum, high sensitivity, zero resistance, safe.

LIVER

- MCTs are metabolized to ketone bodies, which is an alternative energy source for the brain and body
- Aids in reversing fatty liver disease

GENERAL BODY METABOLISM

- Boosts metabolism
- Prevents obesity

IMMUNE SYSTEM

- Strengthens and aids the Immune System

CANCER

- Provides alternative energy source for normal cells which cancer cells do not have
- Antigenotoxic; Anticarcinogenic

PANCREAS

- In WFKD, helps reverse Type 2 Diabetes and Insulin Resistance

MOUTH

- Anti-microbial
- Oral health
- Prevents tooth decay
- Treats sore throat
- Prevents bad breath

THYROID

- Helps improve low thyroid function
- by raising basal body temp and increasing metabolism

SKIN

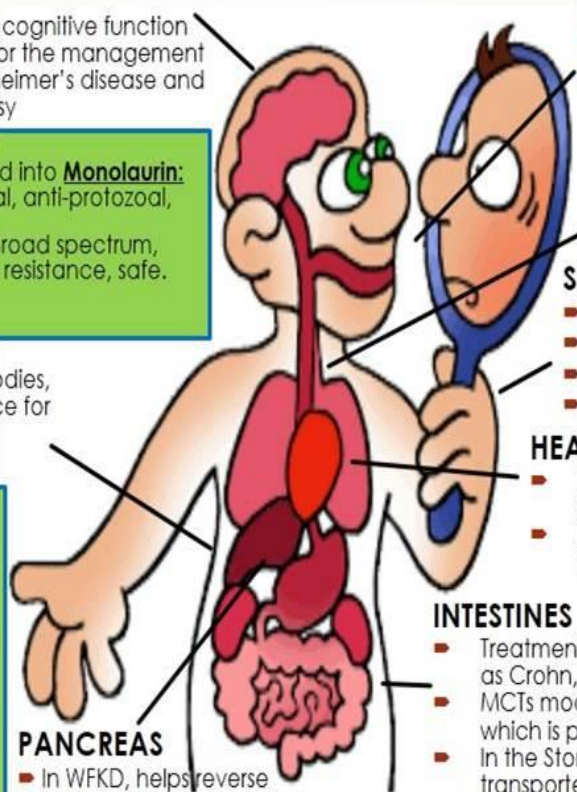
- Anti-microbial
- Treatment for psoriasis
- Treatment for burns
- Moisturizer: Emollient, Occlusive

HEART

- Increases (good) HDL cholesterol
- Lowers Cholesterol ratio (Total Cholesterol/HDL)

INTESTINES

- Treatment for intestinal ailments such as Crohn, Sjogren
- MCTs modulate intestinal microbiota which is part of the immune system
- In the Stomach, MCTs are transported to the liver via the portal vein



Sources:

Dr. Conrado Dayrit
Prof. Jon Kabara
Dr. Mary Enig
Dr. Bruce Fife
Dr. Vermen Verallo,
Dr. Joseph Mercola
Dr. Fabian Dayrit
Dr. Stephen Finney

Source: Marco Reyes, VCO Philippines, VCO : Overview, Processes, Market Drivers , and Outlook - Presentation during the 1st World Coconut Congress 2018

Export Performance of VCO 2016-2019

- ▶ 2016 \$100,519,927
- ▶ 2017 \$76,141,918
- ▶ 2018 \$63,916,933
- ▶ 2019 \$35,803,273 (January to July)

Source: DTI with information from Philippine Statistics Office

Summary from UCAP of VCO export performance 2018 and 2019 forecast:

VIRGIN COCONUT OIL


- ▶ Estimate of virgin coconut oil (VCO) export in 2018 was 21,125 MT, the lowest in the last five years. This is down 21.4% from the previous year data of 26,861 MT. Turnover amounted to USD81.285 million, scaling back by 12.0% the previous year at USD92.419 million.
- ▶ For 2019, export is forecasted to mildly recover from last year by 5.1% at 22,200 MT despite negative campaign against VCO on expectation more markets are developed outside of North America. Against the five-year average at 22,480 MT, projected volume is just 1.2% short. During the five-year period, volume range was 21,125-36,331 MT, the high-end being all-time high achieved in 2015. The sector is anticipated to contribute USD78.870 million to total coconut products export revenue, slightly lower by 3.0% from prior year on slightly lower price.

Source: UCAP

Export Performance of VCO 2016-2019

▶ 2016	\$99,943,785	26,690. (in metric tons)
▶ 2017	\$92,419,162	26,860.
▶ 2018	\$83,644,149	24,896.56
▶ 2019	\$41,261,774	14,682.86 January to August

Source: UCAP



2018-2019 VCO Monthly Export

	2019			2018		
	Volume	Value	Unit Pirce	Volume	Value	Unit Pirce
Jan	1,465.66	4,777,079.00	3,259.35	1,776.25	5,548,397.00	3,123.66
Feb	1,660.33	5,427,551.00	3,268.95	1,270.75	4,422,412.00	3,480.15
Mar	1,599.52	4,709,738.00	2,944.47	1,499.53	5,379,952.00	3,587.77
Apr	1,704.52	4,640,030.00	2,722.19	2,024.33	7,423,399.00	3,667.09
May	2,227.68	5,509,873.00	2,473.36	1,712.76	5,856,899.00	3,419.57
Jun	2,563.93	6,665,034.00	2,599.54	2,565.35	9,485,385.00	3,697.50
Jul	1,640.17	4,100,807.00	2,500.23	2,488.39	8,203,108.00	3,296.55
Aug	1,821.05	5,431,662.00	2,982.71	2,497.34	8,222,914.00	3,292.67
Sep				2,065.88	6,947,612.00	3,363.03
Oct				3,224.53	10,053,142.00	3,117.71
Nov				2,343.57	7,385,412.00	3,151.35
Dec				1,427.87	4,715,517.00	3,302.47
Total	14,682.86	41,261,774.00	2,810.20	24,896.56	83,644,149.00	3,359.67

2019 Top Importers

	Volume	Value
USA	5,942.68	17,595,111.00
Germany	2,218.43	6,079,427.00
Canada	1,917.45	5,184,347.00
United King	807.08	2,634,315.00
China	710.47	1,427,175.00
Brazil	629.21	1,310,939.00

2018 Top Importers

	Volume	Value
USA	12,187.64	40,797,633.00
Germany	3,421.21	11,252,712.00
Canada	1,740.98	5,497,368.00
Netherlands	1,110.08	3,639,320.00
Brazil	1,023.53	3,213,269.00
United Kingdom	850.71	3,180,109.00
Sri lanka	638.11	2,074,900.00
Australia	558.15	1,830,967.00

Notes:


Volume in MT

Value in USD FOB


Unit Price in USD/MT FOB

MARKET	2017		2018*	
	QTY	VALUE	QTY	VALUE
UNITED STATES OF AMERICA	14,871,589	35,743,870	7,905,409	27,998,368
GERMANY	3,835,955	13,218,945	2,839,894	9,406,185
CANADA	2,060,906	6,689,846	992,310	3,166,196
UK GREAT BRITAIN AND N. IRELAND	421,729	1,871,416	663,127	2,434,767
BRAZIL	4,565,981	4,757,715	755,502	2,395,425
NETHERLANDS	1,086,427	3,684,590	719,899	2,297,838
SRI LANKA	16,800	42,560	534,990	1,750,428
CHINA, PEOPLE'S REP. OF	168,792	813,895	331,303	1,233,285
SOUTH AFRICA	248,281	965,302	326,812	1,193,869
MEXICO	119,275	424,911	214,688	755,388
BELGIUM	56,006	182,358	172,912	626,550
FRANCE	217,127	764,202	135,801	516,778
ISRAEL	44,888	224,992	92,833	375,246
LITHUANIA	0	0	91,866	338,758
JAPAN	223,724	1,160,182	89,446	325,335
TAIWAN (REP. OF CHINA)	317,516	1,161,279	88,254	305,030
THAILAND	99,640	242,716	103,694	282,418
AUSTRALIA	38,618	129,571	75,598	274,631
MALAYSIA	113,351	487,574	66,749	241,111
NEW ZEALAND	81,316	335,386	54,945	240,068
KOREA, REP. OF (SOUTH)	170,215	592,370	52,971	200,011

Market Observations

- ▶ Centrifuge processed VCO is generally preferred by food manufacturers (especially in the EU market) due to the consistency in the product's quality and properties (taste and odour).
 - ▶ The North American market is still the biggest market for VCO from the Philippines, predominantly supplied by the desiccated coconut producers who have representative offices in the U.S.
 - ▶ VCO obtained by the expeller method make up a bigger portion of exported VCO. Most desiccated coconut producers retooled their production facilities to produce VCO from mature dried meat with coconut flour as the by-product.
 - ▶ VCO producers sell expeller pressed oil mostly for private labels abroad therefore the country of origin and the name of the producer will not appear in the labels of retail sales, specially in the U.S.
- 

Challenges

- ▶ Organic certification has become a requirement by most foreign buyers. This is a major challenge faced by exporters, specially the MSMEs.
 - ▶ Buyers in Europe require suppliers to register with BRC (British Retail Consortium) which adds to the cost borne by producers
 - ▶ For MSMEs, the full cost of production is borne by the single product, VCO. For large scale producers, the main product is desiccated coconut. VCO and coconut water are secondary products.
- 

Challenges

- ▶ **The negative campaign of the American Heart Association in 2016.** The drastic drop in revenue from 2016 to the present may have been caused by this negative publicity.

Unfortunately, there has been no major study or studies made by the industry or concerned agencies to counter the allegations of AHA.


Current projects of VCOP

- ▶ Ongoing collaboration with Ateneo de Manila University on their research on existing production facilities for establishment of best practices for each type of VCO process and submit recommendations on possible amendments or upgrades of the Philippine National Standard of VCO
- ▶ Continuous partnership with DTI, DA AMAS and PCA for marketing and participation in trade fairs and exhibitions
- ▶ Collaboration with Food and Nutrition Research Institute of the Department of Science and Technology for the study on the effects of the inclusion of coconut in the diet of different regions to the general health of the local population


Current projects of VCOP

- ▶ Collaboration with the University of the Philippines, Department of Biology, for the determination of efficacy of VCO in hindering the growth of cancer cells for breast cancer patients.
- ▶ Collaboration with Synnovate Pharma for the additional classification of VCO as Food for Special Medical Purposes with the Food and Drug Administration of the Department of Health


Recommendations

- ▶ **Conduct research studies on health benefits of VCO to validate claims**
 - ▶ **Consolidate value chain studies by different agencies and craft the VCO industry road map**
 - ▶ Work together with the Philippine Coconut Authority to strictly enforce GMP compliance of VCO producers during inspection required for the annual renewal of PCA permits to establish quality of products sold to buyers to avoid border rejections
- 

Recommendations

- ▶ **Source for fund assistance and capacity building for MSMEs to comply with requirements for the various voluntary sustainability certifications needed by buyers such as BRC and organic certification**
 - ▶ Provide additional or alternative non-traditional product lines for VCO producers to offer buyers other than VCO
 - ▶ Organize marketing events in Europe in coordination with Tourism activities, promotions by courier, money remittance and telecommunications companies to feature Philippine products
- 

Recommendations

- ▶ Organize a “VCOP Road Trip across the Philippines” to preach the health benefits of VCO in the daily life of Filipinos, from addressing skin problems and prevention of diseases, in cooperation with government agencies and participating LGUs.
 - ▶ Conceptualize a marketing campaign featuring VCO to attract the interest of the millenials . We need to improve the perception that VCO is a product for the elderly.
 - ▶ Work with a veterinarian health and wellness endorser for a marketing campaign on the health benefits of VCO for pets.
- 

Thank you and Mabuhay!



Agnes M. Cristobal
Executive Director
Virgin Coconut Oil Producers and Traders
Association of the Philippines, Inc



Have a productive day!