

OVERVIEW OF THE GLOBAL
WIN-WIN FUTURE



 XI AN SAINA BIOLOGICAL TECHNOLOGY CO.,LTD.

It is a chance to select the correct saw palmetto extract.



Suite 201,64 JianGong Road,Xi' an, P.R.China Code 710043

Phone : +86 (29) 82566097

Fax : +86 (29) 82566097-801

E-mail : Manager@herbsino.com

www.herbsino.com

www.herbsino.cn





QUALITY ORIGINATED FROM PROFESSION

For over 200 years, saw palmetto has been used to prevent and improve the symptoms associated with BPH with supporting healthy hair growth and preventing hair loss.

Saw palmetto appears to have efficacy similar to that of medications like finasteride, but it is better tolerated and less expensive.

There are no known drug interactions with saw palmetto, and reported side effects are minor and rare.

Our saw Palmetto Oil is produced using by CO₂ SFE at low temperatures without solvents.



We are HERBSINO.

We collaborate with the world to supply dietary supplement.

Our company is focusing on saw palmetto ext, rooted in chemistry, botany and bromatology expertise.

We harness our primary inputs to strengthen our ability to make products that satisfy unmet needs, offer cost effective options to our customers.

More than 20% saw palmetto ext are exported by HERBSINO from china.

We are leading saw palmetto ext from China to the world!



● The following information you can obtain:

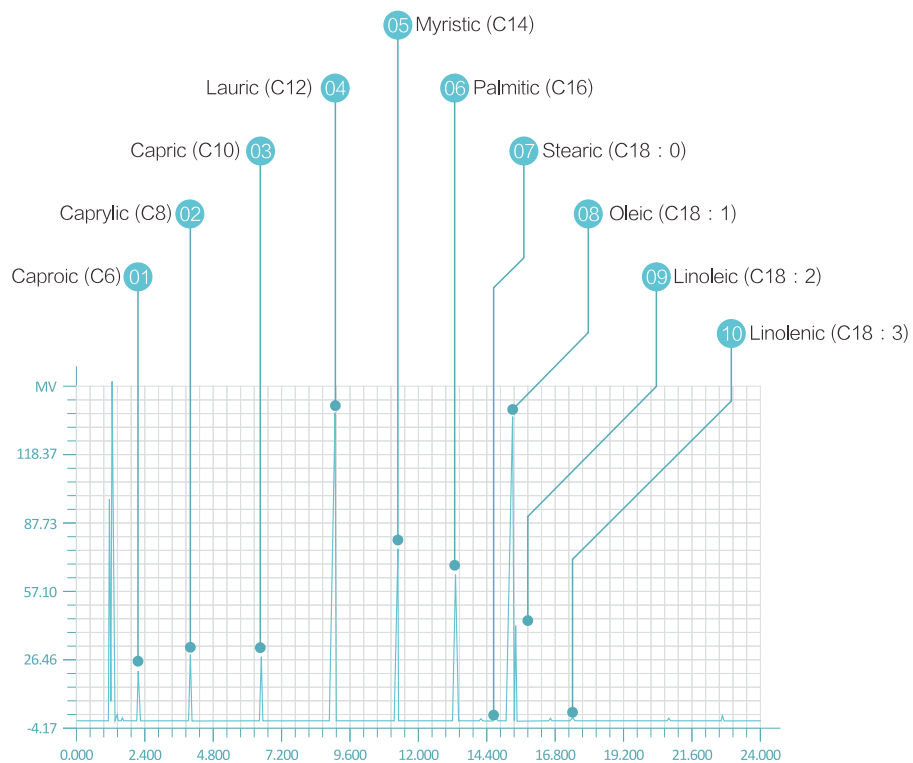
- Fingerprint of saw palmetto extract.
- The latest version of USP for new requirement of saw palmetto extract.
- The level of certain contaminants of saw palmetto extract in EU regulations.
- Safety of saw palmetto extract taken as dietary supplement.
- How to use HPTLC technology to do ID test for saw palmetto extract.
- Quality system of HERBSINO.
- Production process of saw palmetto extract.
- Water-soluble saw palmetto extract produced by National Starch.



● GC fingerprint of Saw palmetto extract

Column: Restek Stabilwax(r) , Carbowax=PEC , 0.25mm × 50m , 0.25 μm @ 110°C–240°C
Injector Temp.: 230°C
Detector Temp.: 250°C
Carrier Gas: H₂
Flow Rate: 2.5 mL/min
Injection: 1 μL
Reference Source: USP36

Peaks:



Regulations of USP36 : The ratios of the concentration of lauric acid to the concentration of the respective fatty acid are in the following ranges.

	USP36		HERBSINO	
	Minimum Ratio	Maximum Ratio	Actual ratio	Result
0.59	31.5	55	51.62	✓
2.66	9	16	11.35	✓
1.33	8.5	24	22.71	✓
3.13	8.5	17.5	9.65	✓
30.20				
1.61	5	16	5.89	✓
5.13	2.2	2.8	2.40	✓
12.60	0.6	1.15	1.04	✓
29.00	2.8	3.9	3.34	✓
9.03	14	26	18.76	✓



The test report issued by the third party lab confirmed that the concentration of fatty acids complies with the USP standard.



Regulations of USP36 :
 Sterols : 0.2% – 0.5%
 β-Sitosterol : Min. 0.1%

The test report issued by the third party lab confirmed that the concentration of Sterols complies with the USP standard.



The test report issued by the third party lab confirmed that the safe dose is 5.0 g/Kg by acute oral toxicity.

eurofins

Page 1 of 1
45-14-SU-03856-01

Client: xian saina biological technology CO.,LTD
Eurofins Tech. Service (Suzhou) Co., Ltd
No. 10 B1, Longshan Road, SND
Suzhou, 215163
Jiangsu Province, P.R.China
Tel: +86 400 828 5088
Fax: +86 512 88783666
Report date: 12/02/14
Print By: happy Chen

sube 201 54 Jiangsu road
xian 710043 P R CHINA
SU0064236

CERTIFICATE OF ANALYSIS
Certificate No.: AR-14-SU-03856-01

Sample

Client Sample Description Saw Palmnets Extract	Sample Code 90214C038742
	Date of order 2014.11.14
	Sample received 2014.11.14
	Start of Analysis 2014.11.14
	End of Analysis 2014.12.02
	Reception temperature 20.4°C
	Quantity of Sample 200g/2
	Sample packaging Sealed plastic bag
	Sample appearance Powder

Client Sample Code
20141107

Results of Analysis

Results	LOG	LOD	Unit	Comments
SU007 Mercury (Hg)	<0.005	0.006	mg/kg	
SU050 Lead (Pb)	<0.05	0.05	mg/kg	
SU056 Arsenic (As)	<0.1	0.1	mg/kg	
SU060 Cadmium (Cd)	<0.01	0.01	mg/kg	

The result(s) relate(s) to the sample tested.
Eurofins General Terms and Conditions apply.
For and on behalf of Eurofins Technology Service (Suzhou) Co., Ltd

Patric Vylet
Patric Vylet
Technical Director

Regulations of USP36 :
Lead : Max. 3.0 ppm
Arsenic : Max. 1.0 ppm
Mercury : Max. 0.3 ppm
Chromium : Max. 1.0 ppm

The test report issued by the third party lab confirmed that the heavy metals complies with the USP standard, and is also in compliance with EU regulations EC 1881–2006.



PONY Test Results
Pony Testing International Center


Report ID: GDALB0301202001 page 2 of 6

Sample Description and Number	Test Item	Test Result
Q1242001 Saw Palmnets Extract 45% (dry wt)	2-phenoxyethanol	Not detected (<0.01 mg/kg)
	Acetylcholine	Not detected (<0.01 mg/kg)
	Acetylcholinesterase	Not detected (<0.01 mg/kg)
	Aldicarb	Not detected (<0.01 mg/kg)
	Aldicarb-sulfoxide	Not detected (<0.01 mg/kg)
	Aldrin	Not detected (<0.01 mg/kg)
	L-Azinphos	Not detected (<0.01 mg/kg)
	Azinphos-methyl	Not detected (<0.01 mg/kg)
	Azinphos	Not detected (<0.01 mg/kg)
	Bendiocarb	Not detected (<0.01 mg/kg)
	Bendiocarb-sulfide	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin-methyl	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)
	Bifenthrin	Not detected (<0.01 mg/kg)


PONY 普尼测试

The test report issued by the third party lab confirmed that the pesticide residue complies with the USP standard, and is also in compliance with EU regulations EC 1881–2006.

134




Test Results




Pony Testing International Group

Report ID: GDAAFH4M14309701 page 2 of 2

Sample Description and Number	Test Items	Test Results	Reference Methods
M14309701 Saw Palmetto Extract 45% fatty acids	12 kinds of PAHS		SC/T 3042-2008
	Acenaphthylene, µg/kg	Not detected (<0.5)	
	Acenaphthene, µg/kg	Not detected (<0.5)	
	Fluoranthene, µg/kg	Not detected (<1.0)	
	Pyrene, µg/kg	Not detected (<1.0)	
	Benzo(a)Anthracene, µg/kg	Not detected (<1.0)	
	Chrysene, µg/kg	Not detected (<1.0)	
	Benzo(b)Fluoranthene, µg/kg	Not detected (<2.0)	
	Benzo(k)Fluoranthene, µg/kg	Not detected (<2.0)	
	Benzo(a)Pyrene, µg/kg	Not detected (<2.0)	
	Indeno(1,2,3-cd)Pyrene, µg/kg	Not detected (<2.0)	
	Dibenzo(a,h)Anthracene, µg/kg	Not detected (<2.0)	
Benzo(g,h,i)Perylene, µg/kg	Not detected (<2.0)		
End of Report			





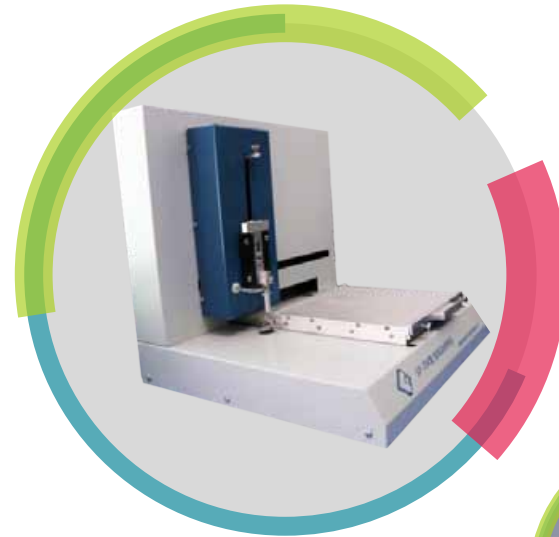
www.ponytest.com Hotline: 400-818-5888

北京分公司: 010-51281111 上海分公司: 021-51089888 广州分公司: 020-85414666 深圳分公司: 0755-85118888
 天津分公司: 022-59199999 武汉分公司: 027-85556666 成都分公司: 028-85557777 西安分公司: 029-85558888
 南京分公司: 025-85559999 杭州分公司: 0571-85550000 青岛分公司: 0532-85551111 烟台分公司: 0535-85552222
 郑州分公司: 0371-85553333 济南分公司: 0531-85554444 太原分公司: 0351-85555555 石家庄分公司: 0311-85556666
 长春分公司: 0431-85557777 沈阳分公司: 024-85558888 大连分公司: 0411-85559999 哈尔滨分公司: 0451-85550000

How do you identify the saw palmetto oil instead of palm oil, olive oil or other counterfeit ?



HERBSINO applied HPTLC & DNA tech to the ID test and solve the problem effectively.



The test report issued by the third party lab confirmed that the PAHS complies with EU regulations EC 1881-2006.

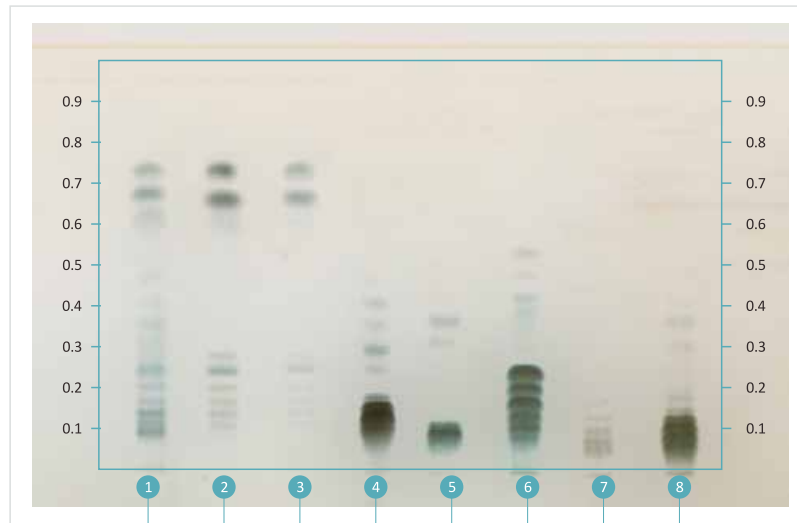
HPTLC test

Sample Prep: 0.1g+20 mL EtOH Sonicate/heat@~50°C~1/2 hr

Stationary Phase: Silica gel 60, F254 RP-18, 10 × 10 cm HPTLC plate [Merck Part#:1.13724.0001, LOT#: Hx53162124]

Mobile Phase: Dichloromethane: acetic acid: acetone = 2: 4: 5, V / V / V

Detection: 2.5% Phosphomolybdic acid reagent ---- 110°C 5min ---- Daylight

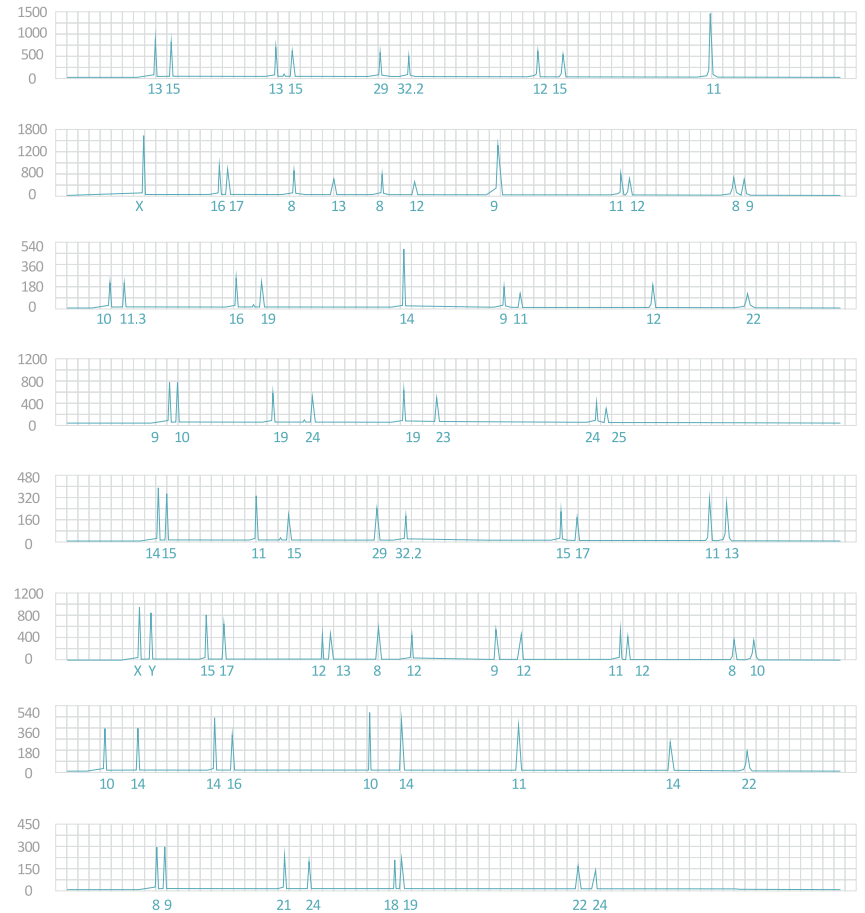


- Serenoa Repens* ●
- Saw Palmetto Oil of Herbsino ✔
- Saw Palmetto Extract 45% of Herbsino ✔
- Olive Oil ✘
- Palm Oil ✘
- Flax seed Oil ✘
- Coconut Oil ✘
- Soybean Oil ✘

DNA tests

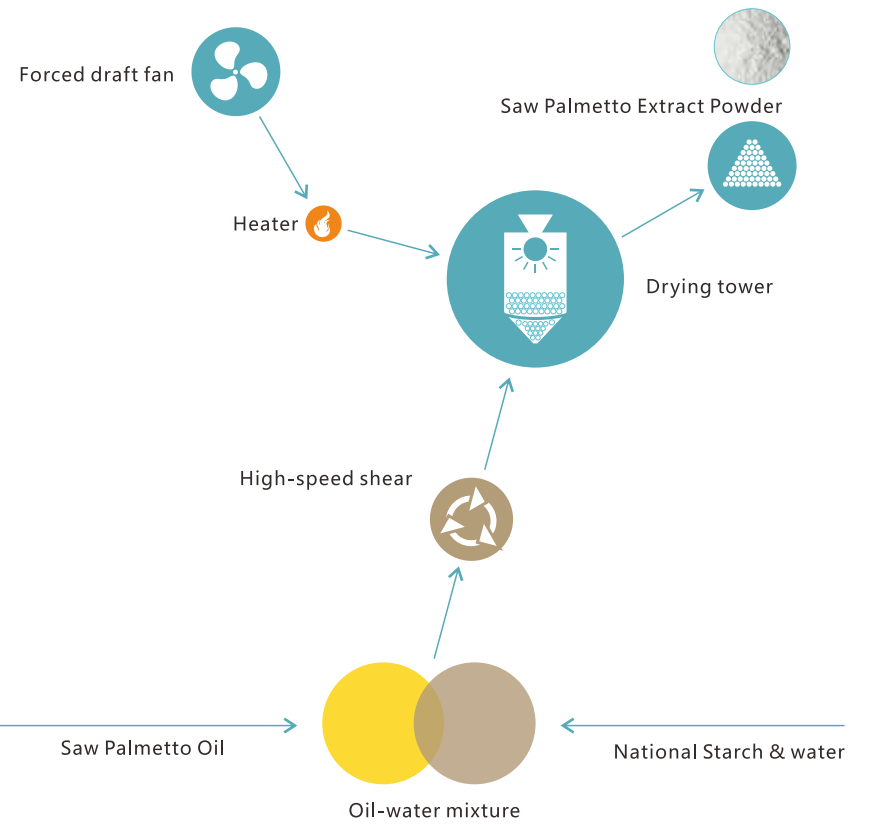
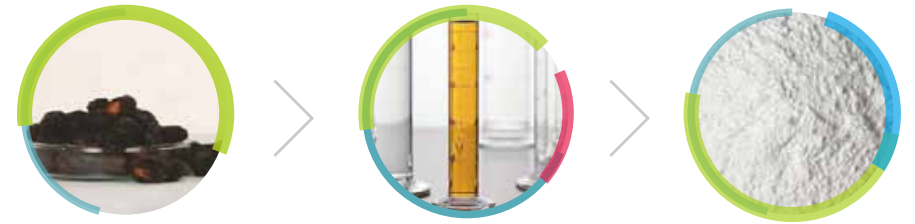
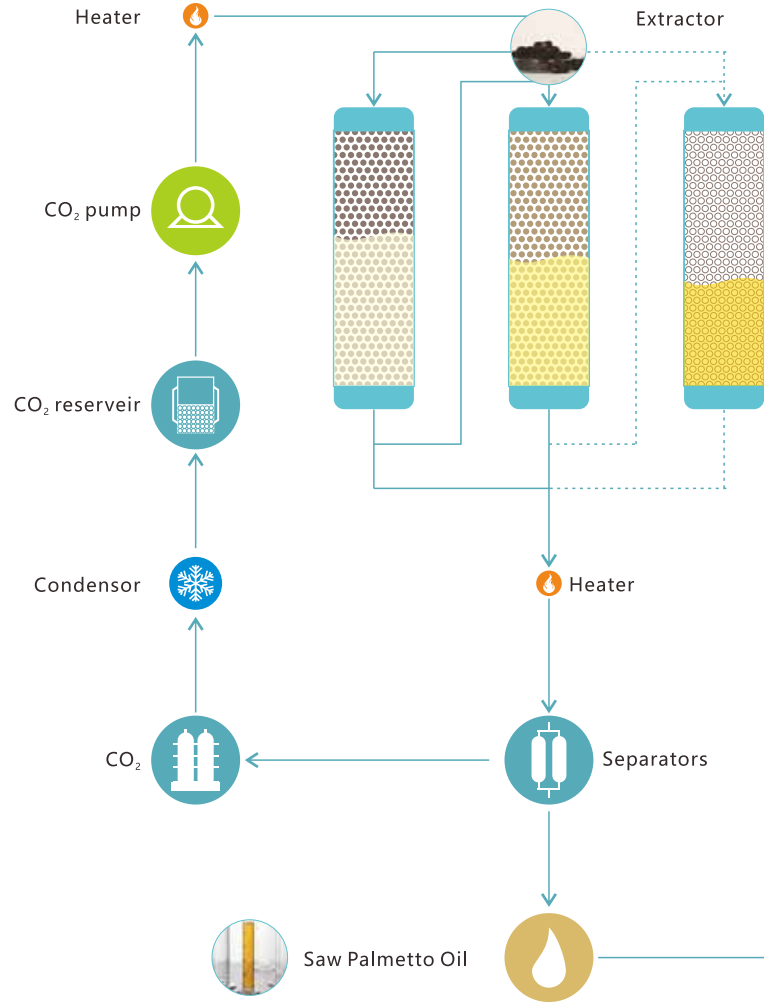
DNA amplification: Microreader™ 21 Direct ID System STR, ABI 9700 Biometra, Multiplexing STR system

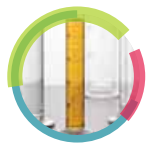
Assay: ABI 3100, Genetic analyzer



The DNA tests confirmed that the cumulative probability genetic relationship (RCP) of Saw Palmetto Oil and Serenoa Repens is 99.9999%.

Production Process of Saw Palmetto Extract





Saw Palmetto Oil

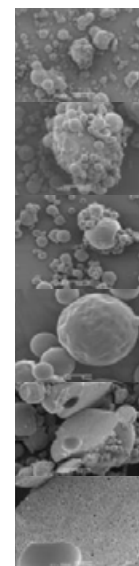


Saw Palmetto Extract Powder

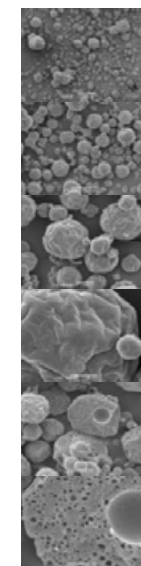
Color	Brown Red	White
Odor	Characteristic	Odorless
Stability	Easy oxidation in air	Stable
Solubility	Soluble in alcohol	Water dispersible
Fatty acids	85–95%	10–50%
Application	Soft capsule, Tincture, Shampoo	Capsule, Tablet, Granule



Select the proper oil or powder according to your actual needs.



National Starch



β -Cyclodextrin

Oil loading	Max. 70%	Max. 30%
Water-Solubility	Water dispersible	Insoluble in water
Stability	Stable	3–6 months stability, then started to seep oil
Mobility	Good	Bad
Oil distribution	Filled in the cavity of the starch	Adhered to the surface of the cyclodextrin

Only the Saw Palmetto extract powder which is microencapsulated by national starch can be used to ensure the stability of the preparation.



