

#### I-4 Current production situation of dimer acid in China

As of Feb 2008, there are 14 active producers of dimer acid in China, most of which are distributed in East China. Of all the producers, Jiangxi Yuanda has the largest production capacity as of Feb 2008 and actual output in 2007, which reached ██████ t/a and ██████ tonnes respectively.

Table I-4-2 Capacity and actual output of the active dimer acid producers in China

Code	Abbreviation	Capacity as of Feb 08 (t/a)	Output'07(t)	Specification	
				Industrial	High-purity
1	██████	██████	██████	Y	N
2	██████	██████	██████	Y	N
3	██████	██████	██████	Y	N
4	██████	██████	██████	Y	N
5	██████	██████	██████	Y	N
6	██████	██████	██████	Y	N
7	██████	██████	██████	Y	N
8	██████	██████	██████	Y	N
9	██████	██████	██████	N	Y
10	██████	██████	██████	Y	N
11	██████	██████	██████	Y	N
12	██████	██████	██████	Y	N
13	██████	██████	██████	Y	N
14	██████	██████	██████	N	Y
<b>Total</b>		██████	██████	-	-

#### I-5.2 Brief introduction to major equipment for fatty acid

There are more than 100 devices of fatty acid in China, but most have small production scale, and adopt technology which is out of date, except the equipment in several large-scale manufacturers. Generally speaking, the fatty acid production devices in China are divided into three types.

- ✓ The first type is equipment imported mainly from Italy and Germany in the 1990s. From 1990s, several tower style devices adopting the technology of high pressure oil-and-fat hydrolysis without catalyst and continuous rectification, one of the medium and high pressure hydrolysis methods, were introduced from overseas. The devices and technologies mainly come from CMB and Gianazza of Italy and Luqi of Germany. The devices can produce fatty acid and glycerol with vegetable oil as the raw material. The advantages of the devices are high yield rate, high precision of separation, large scale and automatic. But the devices need more investment.

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Table I-5.2-1 Fatty acid production devices in some producers in China

Code	Abbreviation	Equipment sources	Hydrolysis pressure	Distillation
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15			Middle pressure hydrolysis	Batch distillation
16			High pressure hydrolysis	Continuous distillation
17				
18				
19				
20		Home made		
21		Home made		
22		Home made		
23		Home made		

### I-6.1 Channel from oil soapstock to oleic acid in China

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Table I-6.1-1 Some contacted vegetable oil producers

No.	Chinese name	English name	Telephone	Person to contact
1				Mr. Chang
2				Mr. Yan
3				Mr. Zhang
4				Mr. Li
5				
6				
7				Mr. Meng

8	[REDACTED]	[REDACTED]	[REDACTED]	Ms. Li Chuanzhi
9	[REDACTED]	[REDACTED]	[REDACTED]	Ms. Li
10	[REDACTED]	[REDACTED]	[REDACTED]	

## I-6.2 Economics comparison of these raw materials

### - Economics of the cottonseed oil

Table I-6.3-1 Production cost & profit margin of cottonseed oil in Shandong in Feb.2008

Code	Item	Unit price (RMB/t)	Consume/Output (t)	Expense/ income (RMB)
1	Production cost	[REDACTED]	2,700	[REDACTED]
		[REDACTED]	-	[REDACTED]
2	Sales income	[REDACTED]	11,000	[REDACTED]
		[REDACTED]	1,100	[REDACTED]
		[REDACTED]	1,900	[REDACTED]
		[REDACTED]	800	[REDACTED]
		[REDACTED]	5,000	[REDACTED]
3	Appr. profit	-	[REDACTED]	[REDACTED]
4	Profit margin	-	[REDACTED]	[REDACTED]

## II-2.2 Import & export analysis of oleic acid in 2007

### - Import of oleic acid

Table II-2.2-1 Import volume and price of oleic acid in 2007 (Quantity, tonne; price, USD/kg)

Month	Quantity	Price
Jan	[REDACTED]	1.85
Feb	[REDACTED]	1.78
Mar	[REDACTED]	1.30
Apr	[REDACTED]	1.88
May	[REDACTED]	1.32
Jun	[REDACTED]	1.41
Jul	[REDACTED]	1.28
Aug	[REDACTED]	1.36
Sep	[REDACTED]	1.33
Oct	[REDACTED]	1.33
Nov	[REDACTED]	1.47
Dec	[REDACTED]	1.95
<b>Total</b>	[REDACTED]	<b>1.39</b>