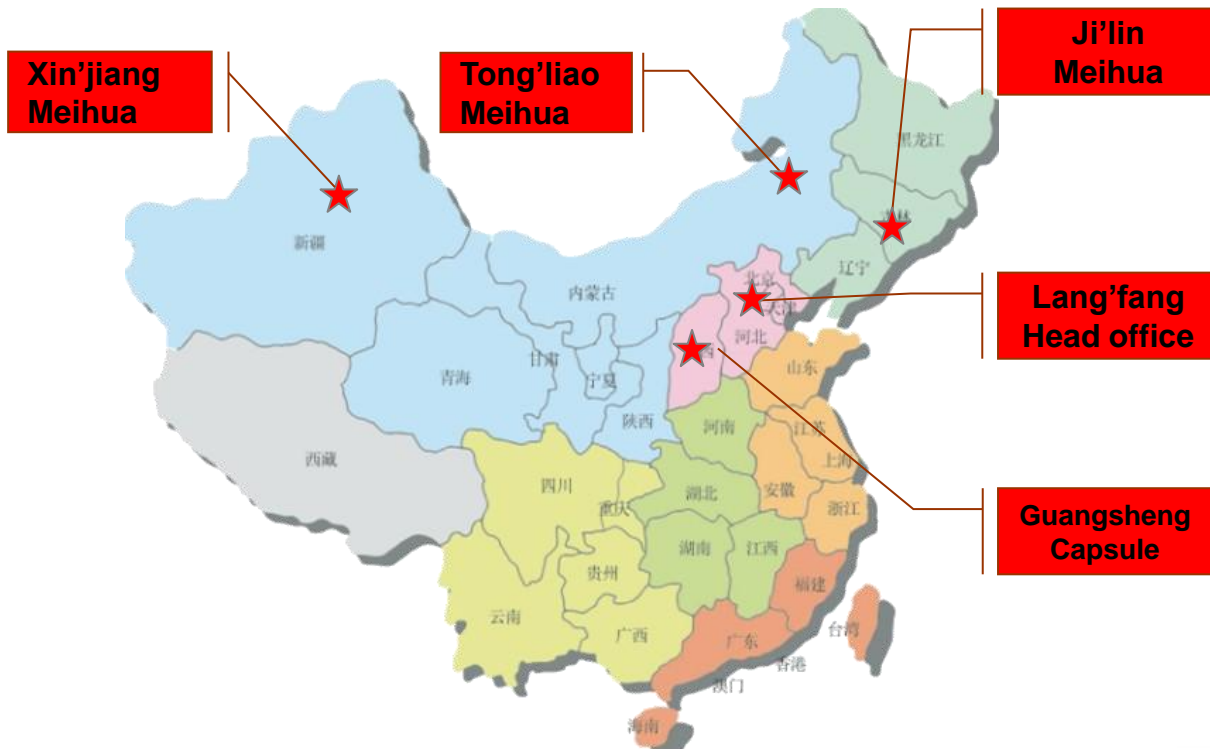


# Meihua Xanthan Gum

One of 30 most popular food ingredients

***HIGHER viscosity***  
***STRONGER suspension***  
***BETTER synergistic effect***

# Meihua Group



**Ji'lin Meihua**

★ Corn-fermentation based amino acid manufacturer of food additives, feed additives, APIs and Polysaccharides

★ 2018 Total sales \$2,000,000,000  
Staffs 11,000

**Lang'fang Head office**

★ Head office Langfang, China

**Guangsheng Capsule**

★ Production bases Inner Mongolia  
Xinjiang  
Jilin

★ Purchased Guangsheng Capsule in 2014

★ Stock 600873.SH





# Production Base Xinjiang Meihua



**Establishment 2012**

**Investment US\$100,000,000**

**Area 300 acres**

**Staff 3,120**

**Main Products MSG, I+G, L-Lysine  
**Xanthan gum****

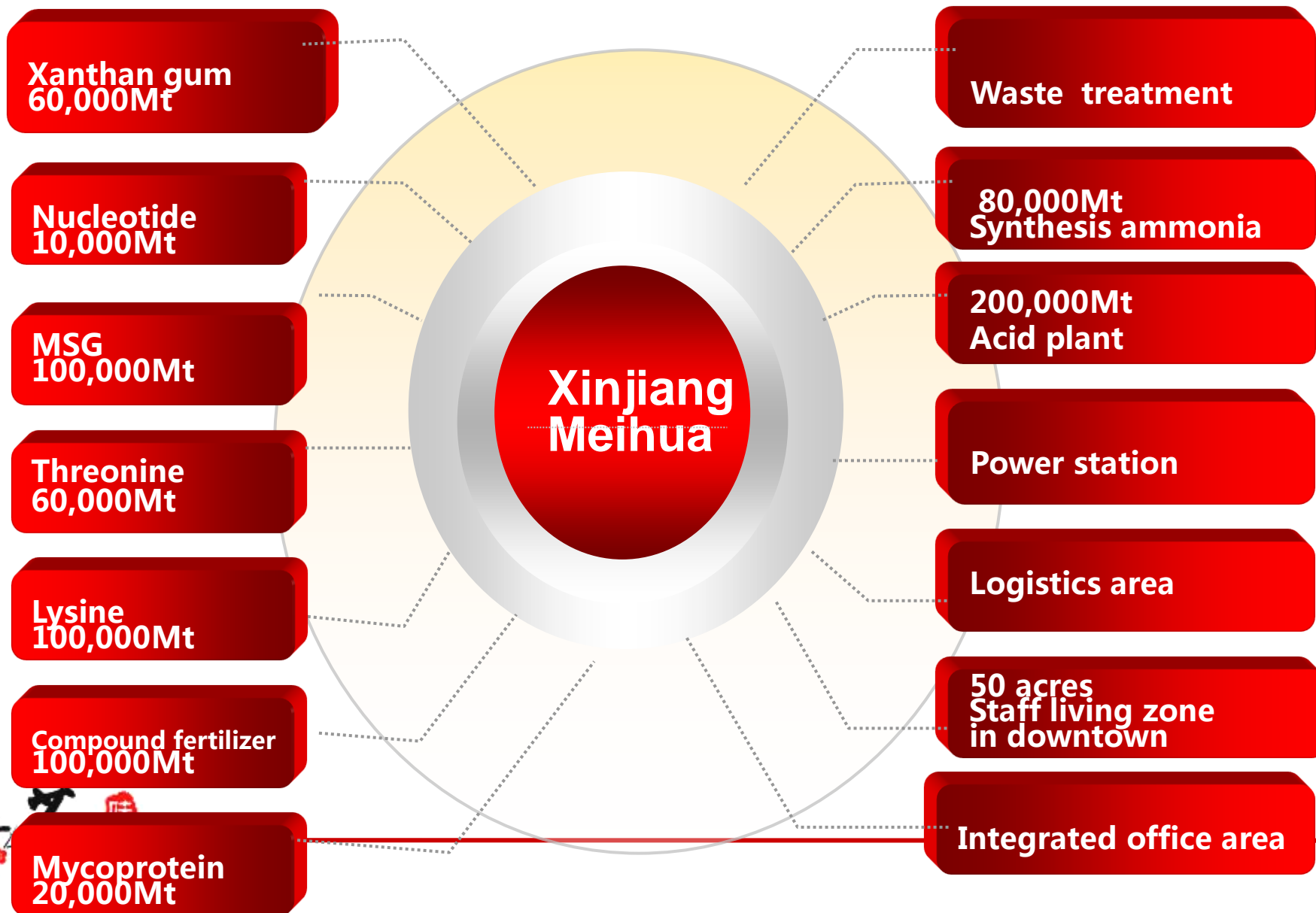
**Corn Processing 1,000,000 tons/year**



# Production Base Xinjiang Meihua

Main products & supporting facilities

18





# Production Base Xinjiang Meihua



## Environmental protection



imported **Netherland PAQUES** wastewater treatment technology and adopted the most advanced biological nitrogen removal technology.



Waste gas –  
before treatment



Waste gas –  
after treatment

Meihua invested more than **USD40 million** at waste gas treatment facilities and is the first manufacturer who solved this problem in China fermentation industry.

# Xanthan Gum Introduction

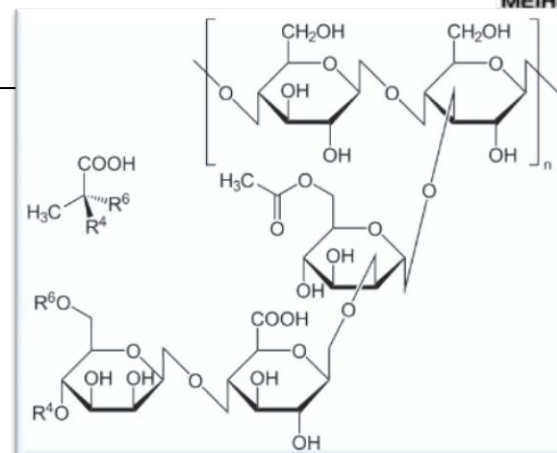


## Basic info

Name: Xanthan Gum

CAS: 11138-66-2 Chemical formula:  $(C_{35}H_{49}O_{29})_n$

Appearance: off-white or light yellow free flowing powder



## Applications

Application	Usage (%)	Function
Oil drilling	0.1-0.4	Provides stability against salt & high temp, viscosifier, rheology modification
Oil recovery	0.05-0.2	Acts as mobility control agent
Meat products	0.1-0.2	Binds water, tenderizing
Frozen food	0.1-0.2	Contributes smooth texture
Condiments	0.1-0.3	Emulsifies, thickenings, stabilizes
Food fillings	0.5-1.5	Improves shape and taste
Flour products	0.03-0.08	Improves toughness, binds water, extends shelf life
Cosmetics	0.3-1.2	Improves adhesive & lubricious stability, thickening, fixes forms
Toothpaste	0.4-0.6	Improves stand on the toothbrush, suspension and taste
Feed products	0.5-2.0	Acts as adhesive agent
Textile printing	0.4-0.6	Improves color adhesion and color degree



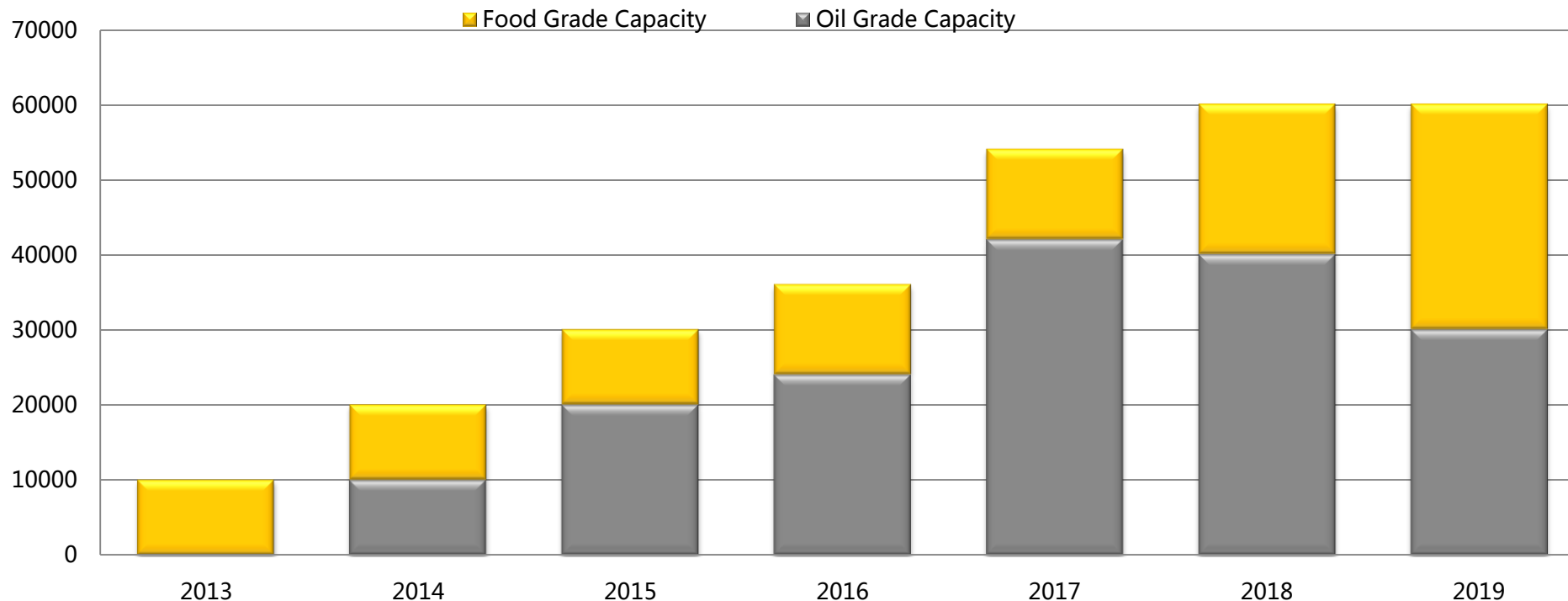


# Meihua Xanthan Growth



Capacity, Ton

## Meihua Capacity Growth



## Global Capacity Breakdown

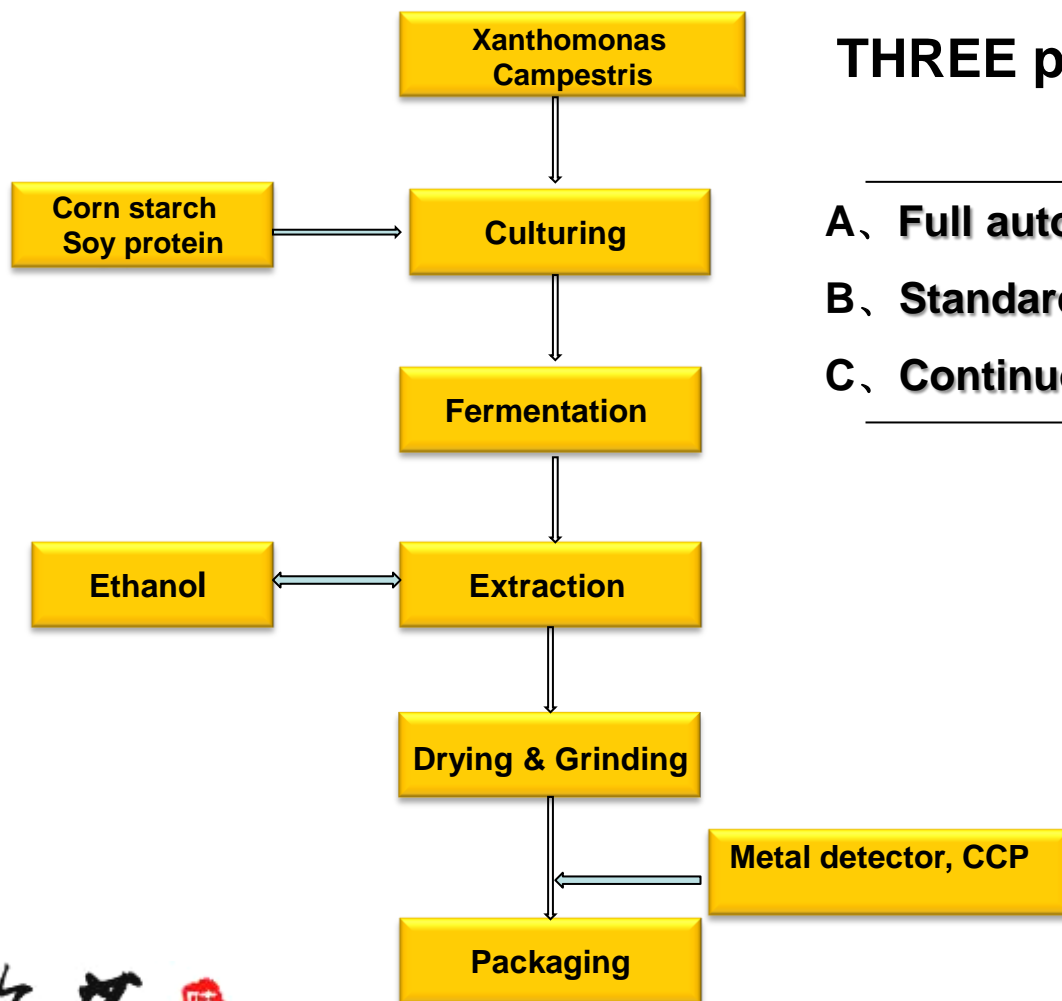
Capacity	World	China	Meihua	Meihua global share, %
<b>Total</b>	170,000	145,000	60,000	35%
<b>Food grade</b>	90,000	70,000	30,000	33%
<b>Industry grade</b>	80,000	75,000	30,000	37.5%



# Meihua Technology Advantage



## Production flow chart



## THREE production technology advantages

- A、 Full automatic production
- B、 Standardized & Directed production
- C、 Continuous production

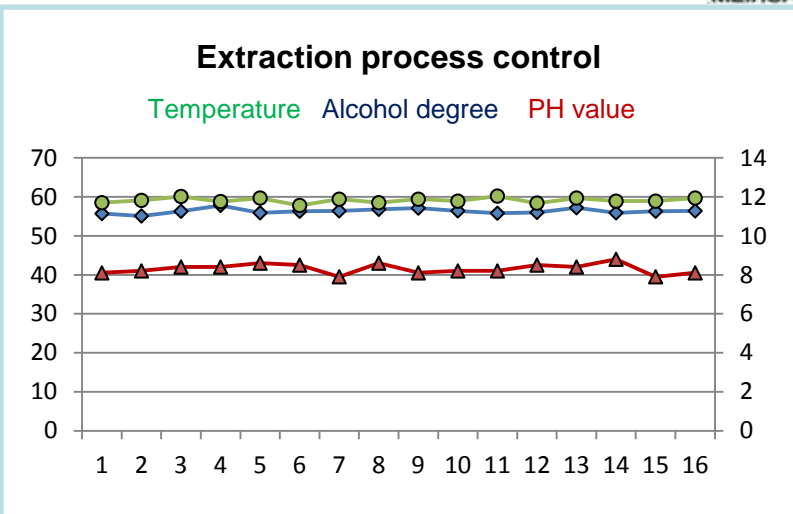
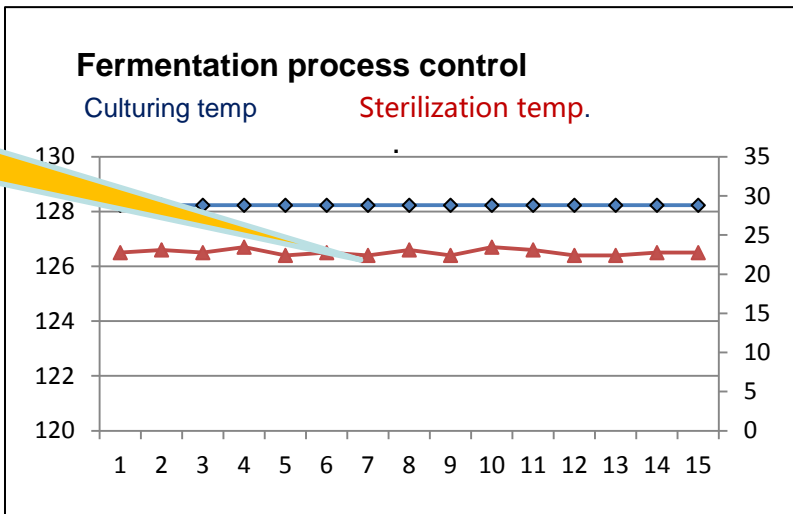




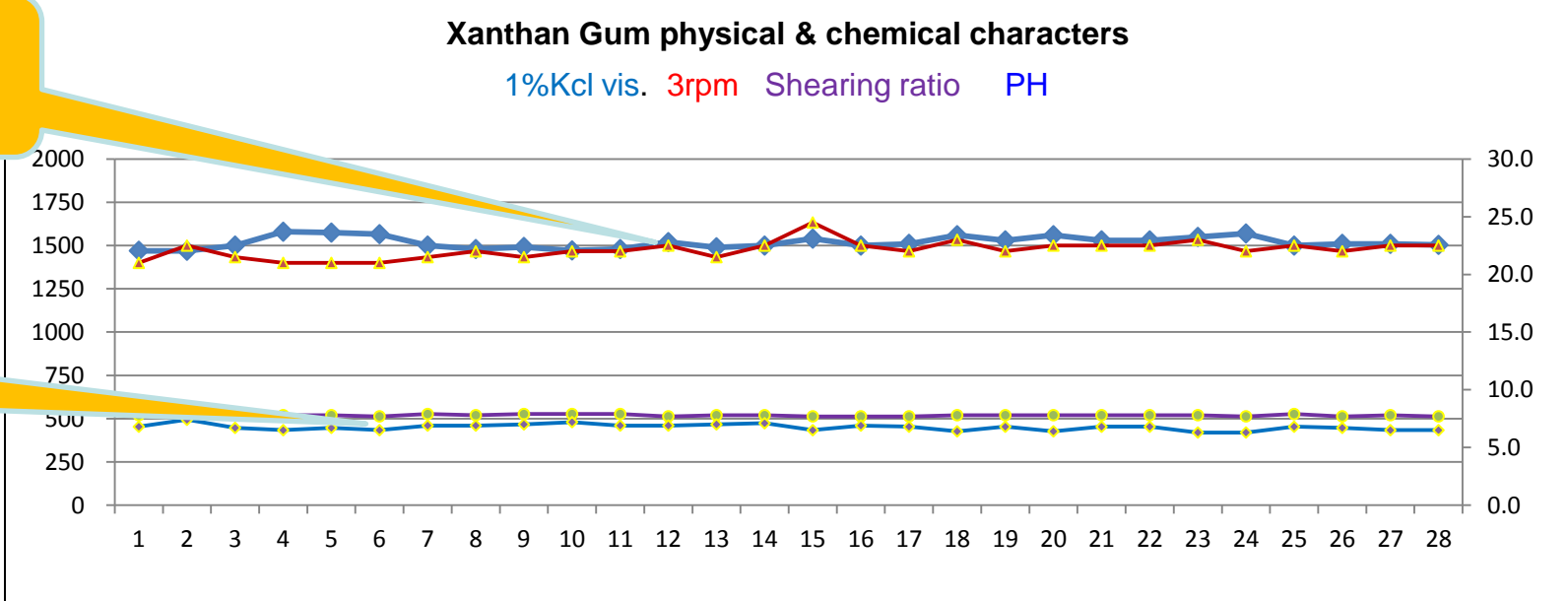
# Meihua Technology Advantage



Stable Production Conditions



Stable & HIGH  
●1%Kcl Solution viscosity  
●Rheology measurement



Shearing ratio and PH fluctuate within ±0.5



# Workshop Quick View



## Full automatic production system and strict in-process control

Meihua is the first and ONLY Chinese producer running full automatic production and “push-button start” on fermentation, extraction and GMP packaging stage, and therefore guarantee product stability and homogeneity in most degree



**Fermentation tank  
(body)**



**Fermentation tank  
(top )**





# Workshop Quick View



Extraction tank



Distilling tower



Separator



Drying machine



# Workshop Quick View



Grinding machine



Sieving room



Mixing tank



Packaging machine



# Workshop Quick View



GMP standard packaging line

Clean & durable package



Metal detector

Warehouse



Stretch-wrapped (food grade)

Shrink-wrapped with caps(oil drilling grade)



# Meihua Quality Advantage



## Food grade specification

Product code		Description
MHF-80	MHF-200	Basic type 80&200mesh
MHF-80PLUS	MHF-200PLUS	High viscosity 80& 200mesh
MHF-80E	MHF-200E	E415 standard 80& 200mesh
MHF-80F	MHF-200F	FCC standard 80& 200mesh
MHF-80AF	MHF-200AF	Amylase free 80& 200mesh
<b>New</b> MHF-40 granular		40mesh granular
<b>New</b> MHF-80 LD	<b>MHF-80 RD</b>	80 mesh low dust & readily dispersion
<b>New</b> MHF-80T	<b>MHF-200T</b>	Transparent food grade 80&200mesh



# Meihua Quality Advantage

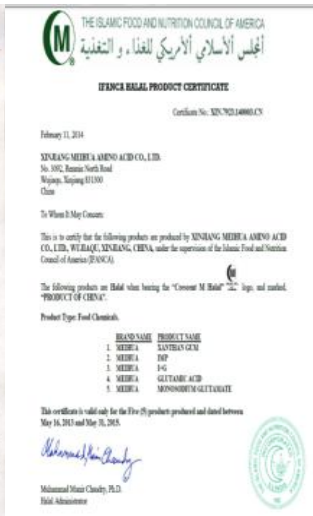


## Food grade qualification certificates

### BRC



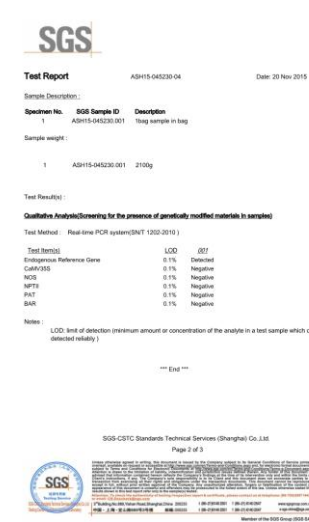
### Kosher



### Halal



### non-GMO



### ISO14001:2004



### OHSAS18001:2007



### ISO9001:2008



### ISO22000:2005





# Meihua Quality Advantage



**HIGHER**  
Viscosity

**STRONGER**  
Suspension  
Ability

**Meihua**  
**Xanthan**  
**Gum**

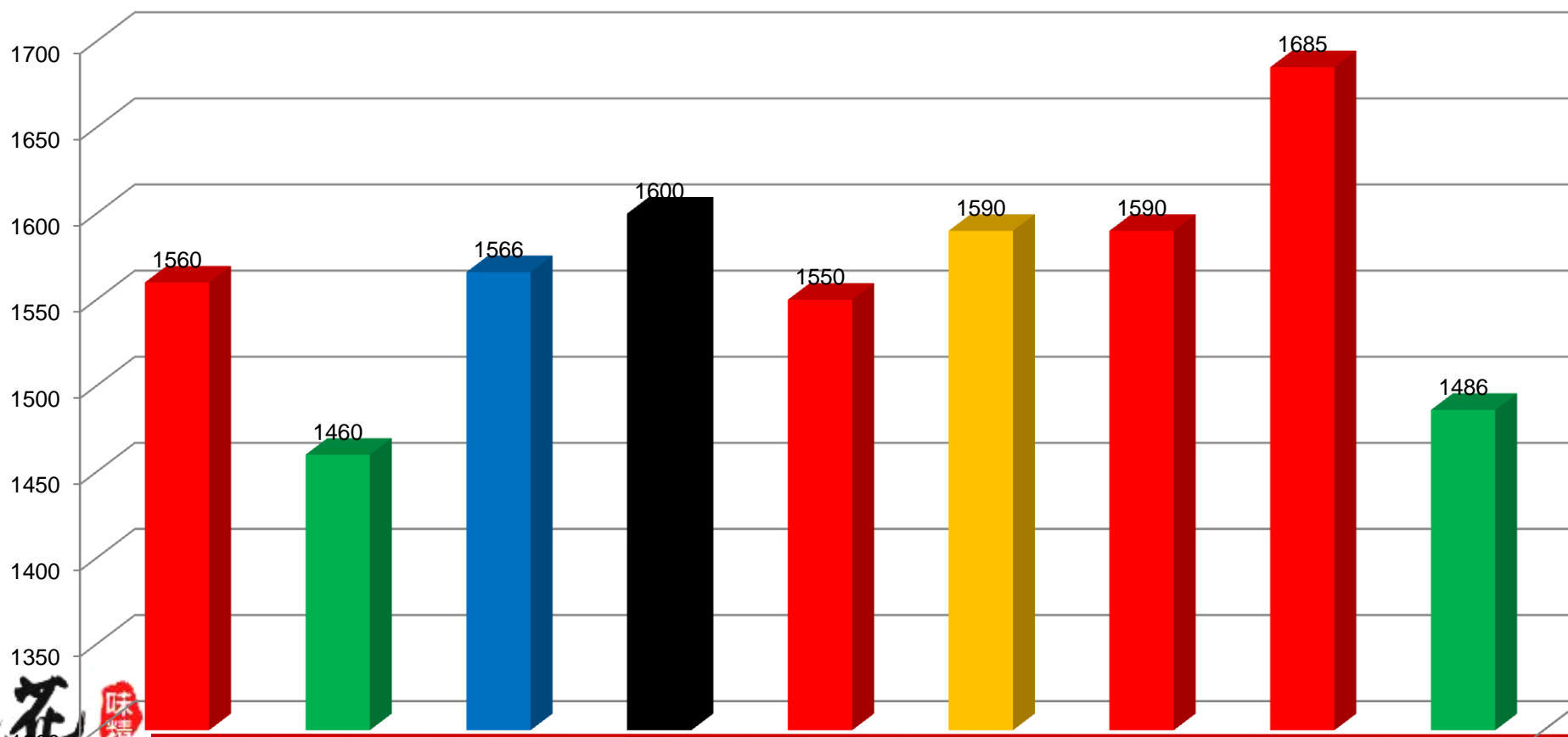
**BETTER**  
Synergistic  
Effect

# Meihua Quality Advantage



## HIGHER Viscosity (1% KCl solution comparison)

1% Xanthan in 1% KCl solution	MHF-80	Competition #1a	Competition #2	Competition #3	MHF-200	Competition #4	MHF-200 PLUS	MHF-80 PLUS	Competition #1b
	1560	1460	1566	1600	1550	1590	1590	1685	1486



# Meihua Quality Advantage



**STRONGER**  
suspension ability

comparison on carrot juice



No.	Product Name	Recipe, in grams							Layered
		Sugar	Citric Acid	Sodium Citrate	Xanthan Gum	Carrot Pulp	Water	Total Weight	72 hours
1	MHF-80F	10	0.12	0.2	0.05	10	79.63	100	YES 2:1
2					0.07		79.61		YES 2:1
3					0.10		79.58		YES 1:5
4					0.15		79.53		NO
5					0.20		79.48		NO
6					0.30		79.38		NO
7	MHF-200F	10	0.12	0.2	0.05	10	79.63	100	YES 1:1
8					0.07		79.61		NO
9					0.10		79.58		NO
10					0.15		79.53		NO
11					0.20		79.48		NO
12					0.30		79.38		NO
13	Competition	10	0.12	0.2	0.05	10	79.63	100	YES 2.5:1
14					0.07		79.61		YES 2:1
15					0.10		79.58		YES 1:1
16					0.15		79.53		NO
17					0.20		79.48		NO
18					0.30		79.38		NO



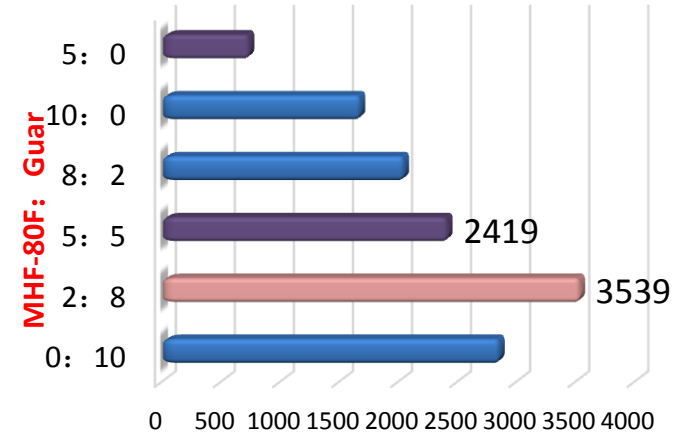
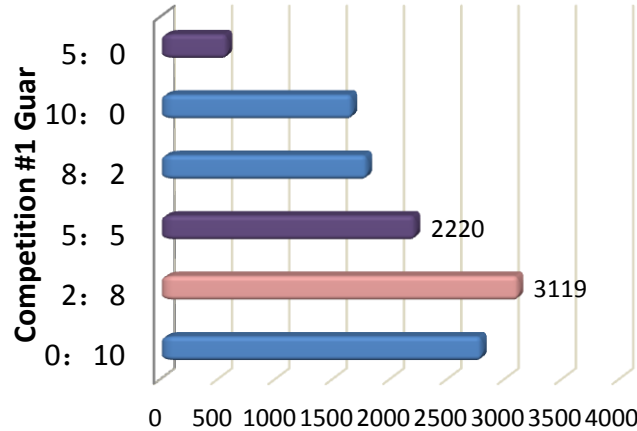
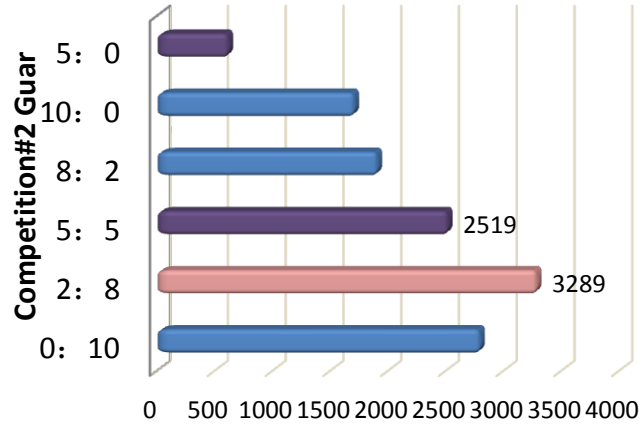


# Meihua Quality Advantage



## BETTER synergistic effect

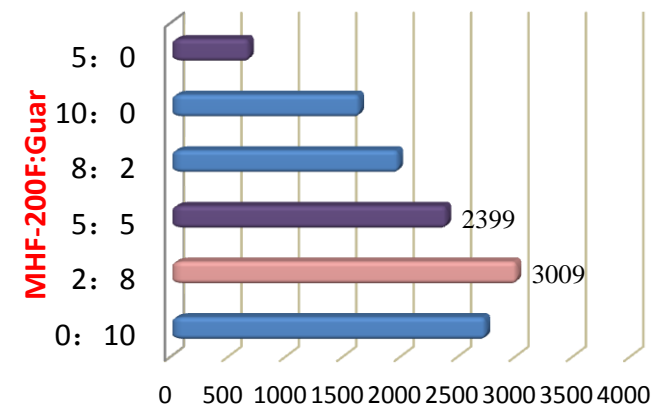
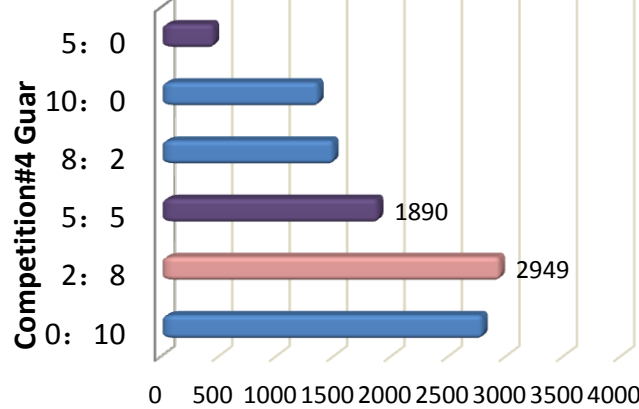
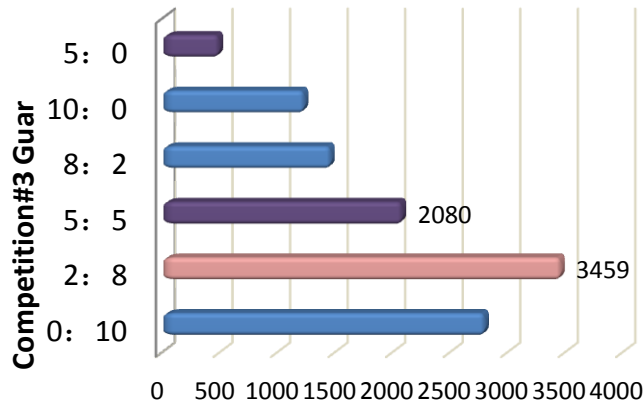
## Xanthan & Guar gum



Viscosity/mPa·s

Viscosity/mPa·s

Viscosity/mPa·s



Viscosity/mPa·s

Viscosity/mPa·s

Viscosity/mPa·s



# New MHF-40 food grade 40mesh



Items	Standard
1% Kcl viscosity, mPa.s ( Brookfield LVDV, 3#,60rpm)	1300-1800
pH ( 1% solution )	6.2-7.8
Ethanol residue , ppm	≤500
Total plate count , cfu/g	≤2000
Thru USS#20 , %	> 90
Thru USS#200 , %	< 5

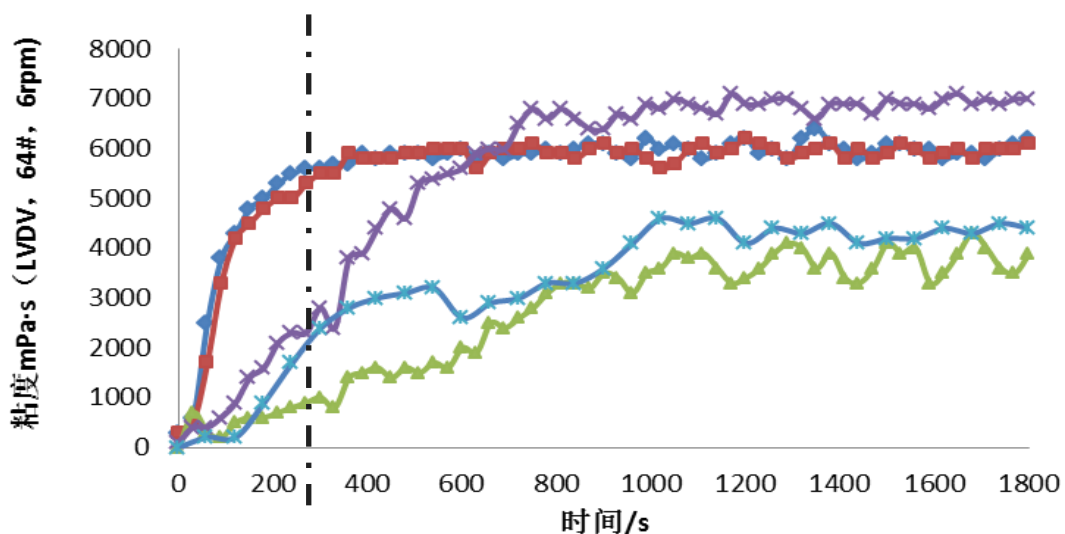


## Features:

Low dust—fine powder < 5%

Excellent dispersion and Fast hydration  
—viscosity rising faster than regular  
80&200mesh product

Low ethanol residue—meet FCC&E415



◆ MHF-40GM-1      ■ MHF-40GM-2      ▲ MHF-80F  
✕ MHF-200F      ✱ 竞品大颗粒

# New MHF-80/200T

## Transparent food grade 80 & 200meh



Items	Standard
1% KCl viscosity, mPa.s ( Brookfield 3#,60rpm)	1300-1800
pH ( 1% solution )	6.2-7.8
Ethanol residue , ppm	≤500
Total plate count , cfu/g	≤2000
<b>Transmittance</b> ( 1% solution , 600 nm ) , %	<b>&gt; 85</b>

### Features

**High transparency—transmittance degree > 90**

**Strong suspension —keep suspending long time**

**Professional application ——suitable for applied in  
jelly, tooth paste ,transparent beverage and  
cosmetics**





# Meihua Quality Advantage



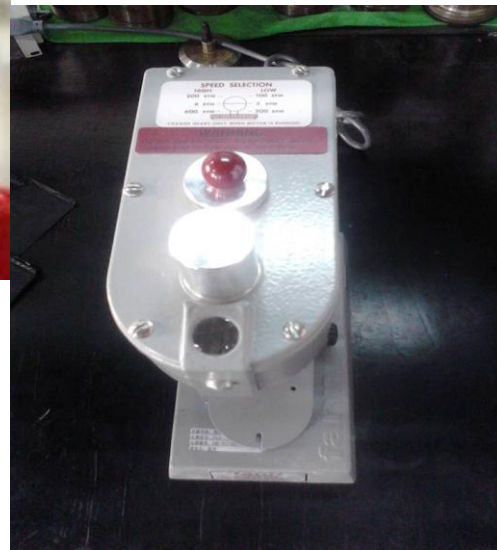
## Strict Quality Control



Lab view



Hot rolling room



FANN 35 viscometer



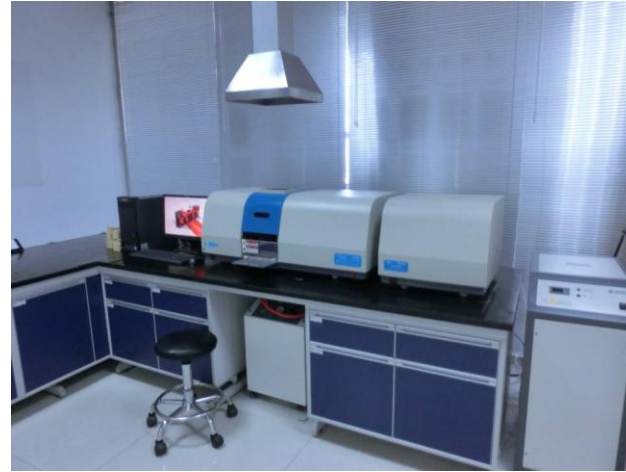
Brookfield viscometer



# Meihua Quality Advantage



**Gas chromatograph(GC)**  
**Ethanol test**



**Atomic absorption spectroscopy(AAS)**  
**Heavy metal test**



**Incubator**      **Bacteria test**



# Why Meihua Xanthan Gum



- **Reliable supplier** (*60,000t/a, financial health , good reputation*)
- **Stable quality**(*automatic ,standardized and continuous production*)
- **Excellent performance** ( *Higher viscosity , stronger suspension, better synergetic effect* )
- **Competitive price** (*10% lower than industry average*)
- **Efficient supply chain**(*safety stock in Tianjin warehouse*)





## Focusing on Bio-fermentation

## Building & Sharing Better Future

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