# 해외양돈 연수(스페인, 중국)

정 현 규



## 20 Top Asian animal feed companies

Annual compound feed production (x1000 metric tons)

**THAILAND**

| | |
|---|---|
| CP Group | 27650 |
| Headquarters in Thailand, operates in 12 countries | |
| Betagro Group | 3000 |

**CHINA**

| | |
|---|---|
| New Hope Group | 18700 |
| Wen's Food Group | 13000 |
| East Hope Group | 7800 |
| Shuangbaotai Group (Twins Group) | 6900 |
| Tangrenshen Group (TRS) | 6000 |
| Haid Group | 5520 |
| Yuetai Group | 5000 |
| DaChan Food (Asia) Ltd. | 4800 |
| Zhengbang Group | 4630 |
| West Hope Group (Sichian Tequ) | 4000 |
| Tongwei Group | 3990 |

**JAPAN**

| | |
|---|---|
| JA Zen-Noh | 7200 |

**SOUTH KOREA**

| | |
|---|---|
| Nonghyup Feed Inc. | 3500 |
| Hanlim Group | 3100 |

**INDIA**

| | |
|---|---|
| Amul | 3170 |

**OTHER ASIAN COUNTRIES**

| | | |
|---|---|---|
| Malayan Flour Mills | Malaysia | 4200 |
| Japfa Ltd. | Singapore | 3904 |
| San Miguel Pure Foods | Philippines | 3300 |

# 스페인 양돈

- 사육두수 규모
- 높은 생산성
- 건조햄(하몽 등)의 발달
- 수출 산업
- 번식기술에 대한 연구 발달
- 지역적인 양돈형태 차이
- 협동조합과 계열화업체가 발달

## 스페인양돈시장

•**Final production Porcine Sector in Spain** is **6.000 € millions** (14% of the final agricultural production and 37% of the Final Livestock Productio n)
•**1st sector in livestock** production in Spain
•**1st europe meat producer** (in 2016 we have overtaken Germany as t he third producer)
•**3th world meat producer** (3.895.000 Tm net meat production)
•The number of **animals slaughtered in 2015 was 46.38 million** head ( 5-7% of increasing in 2016)
•154% **Self-sufficient** (Europe 111%) → Surplus: 1.275.000 Tn
•**1st exporting** country in Europe.
•Consumption of the country: 2.164.000 Tn
•Consumption: **48.33 kg/person**
• Direct jobs: 1**95.000**
•Indirect jobs: **2.000.000**
• **Farms: 87.556**



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## 스페인 생산성적

Comparative with best farms (2015)

| SELECTED INDEXS | BEST FARMS OF SPAIN | SPAIN |
|---|---|---|
| Age of piglets at weaning | **24.26** | **23.96** |
| Farrowing interval | 147.29 | 147.86 |
| % Preweaning mortality over born alive | 11.55 | 12.59 |
| Number of piglets born died / litter | 1.22 | 1.10 |
| Nr. weaned piglets / litter | 12.77 | 11.34 |
| % Repeated services | 11.00 | 13.58 |
| Number of piglets born alive / litter | 14.44 | 12.98 |
| Days from weaning to last service | 7.16 | 8.54 |
| Fertility (%) | **88.99** | **86.41** |
| Weaned piglets/present sow year | 28.97 | 23.62 |
| Weaned piglets/present sow after first service/year | 30.93 | 25.99 |
| Weaned piglets/present sow after first parity/year | **31.65** | **28.01** |

## Types of insemination



| Country | Sows (m) | AI Sows | Cervical AI | | Post-cervical AI | | Source (2015) |
|---|---|---|---|---|---|---|---|
| | | | % of sows | Spts/dose | % of sows | Spts/dose | |
| USA | 5.75 | 5.20 (90%) | 80% | 3 bi (total) | 20% | 2 bi | Knox, Fortune, Pinillo |
| Canada | 1.3 | 1.3 (100%) | 100% | 2.5-3 bi | Some trials | | Dyck |
| Brazil | 1.6 | 1.5 (93%) | 40% | 3 bi | 60% | 1.5 | Bortolozzo |
| Argentina | 0.3 | 0.16 to 0.18 (50-60%) | 98% | 3-5 bi | 2% | 1-1.5 bi | Gobesi, Santa Maria |
| Chile | 0.235 | 0.19 (92%) | 30% | 3.5 bi | 90% | 2 bi | Peralta |
| Mexico | 0.85 | 0.72 (85%) | 88% | 3 bi | 12% | 1.8-2.2 bi | Topia |
| Germany | 2.05 | 1.95 (95%) | 100% | 1.8 bi (total) | - | - | Sinnett |
| Denmark | 1.04 | 1.0 (96%) | 100% | 2.2 bi (total) | - | - | Sinnett |
| Spain | 2.35 | 2.25 (99%) | 40% | 3 bi | 60 | 1-1.5 bi | De Alba |
| France | 1.0 | 1.0 (100%) | 50% | 3 bi | 50%(?) | 1.5 bi | Colleli |
| Netherlands | 1.2 | 1.18 (98%) | 100% | 1.2-1.5 bi (matrix) | Some trials | <1 bi (matrix) | Kemp, Broekhuijse |
| Total | 17.7 | 16.4 (93%) | 75.4% | 12.4 Sows | 24.6% | 4.0 Sows | |

*Bortolozzo et al. 2015 - Data presented at the 8th International Conference on Boar Semen Presentation, 2015

## 스페인 이유자돈사, 비육사 폐사율







2013




ESPA
ESPACI


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Calidad al alcance

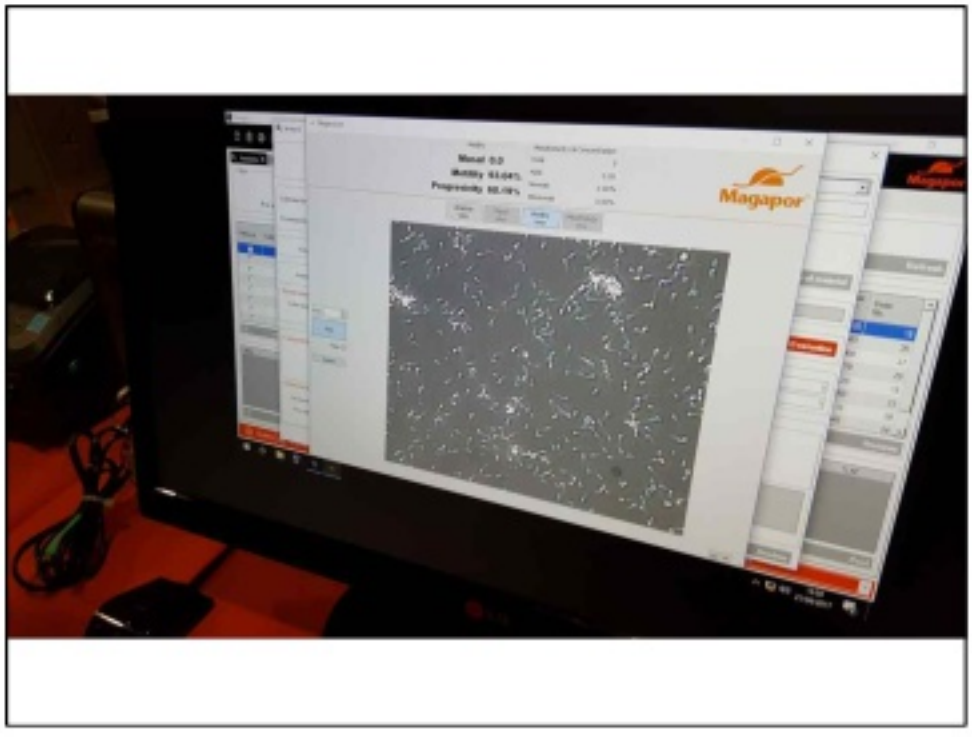


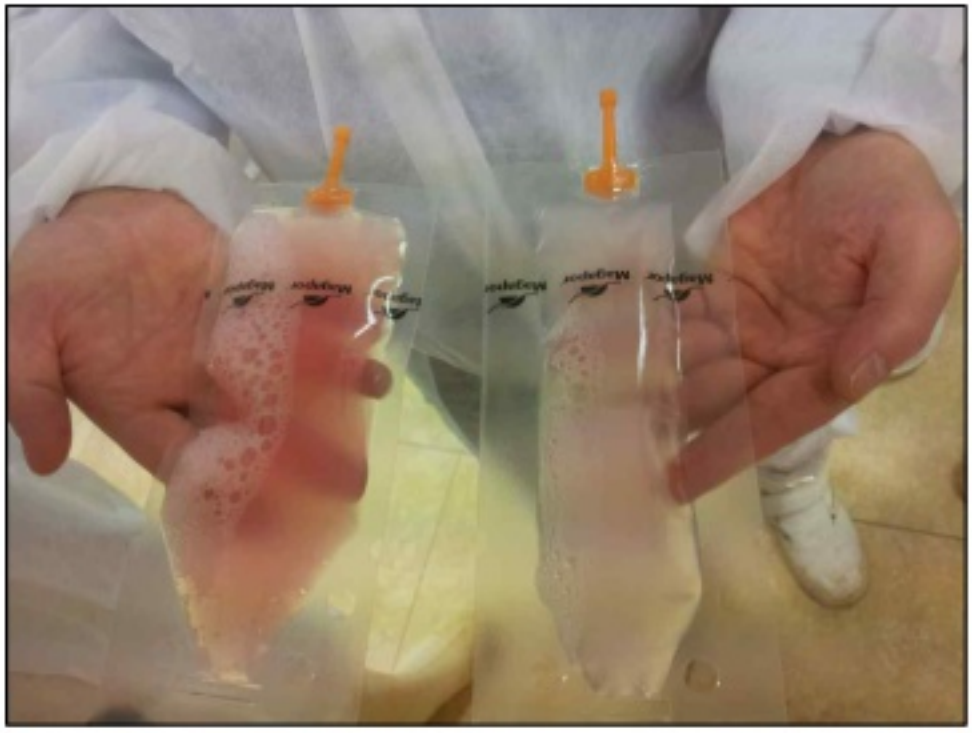







The corridor and the gates to enclose the boar in front of 6-7 sows
Lights above the sow's heads
FOR HEAT DETECTION TO BE
EFFICIENT, THE FOLLOWING ARE


Magapor





Here are different examples of feeding machines with milk feeders






PHOTOS: CARGILL









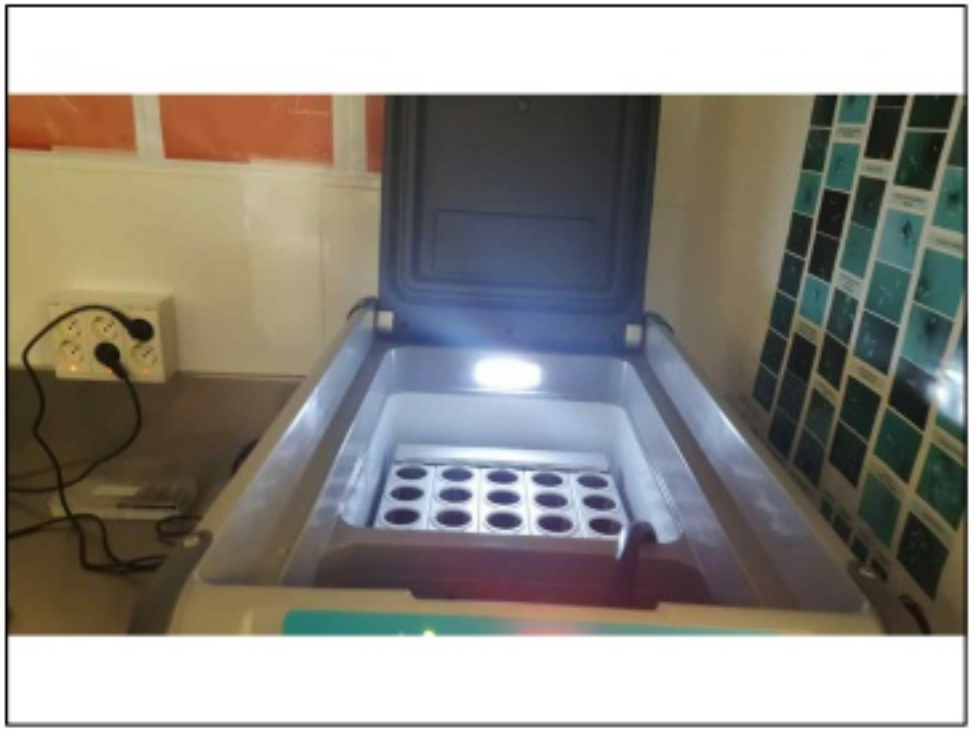








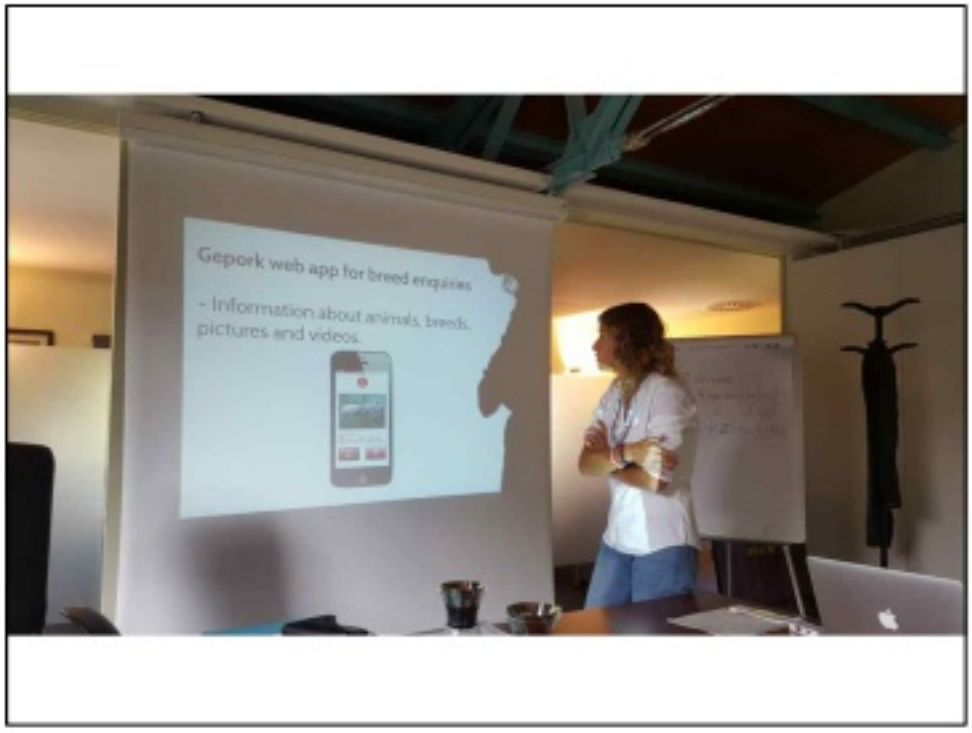







"in vivo" fertility results


"in vivo" prolificacy results (Total)


Gepork web app for breed enquiries
- Information about animals, breeds, pictures and videos.



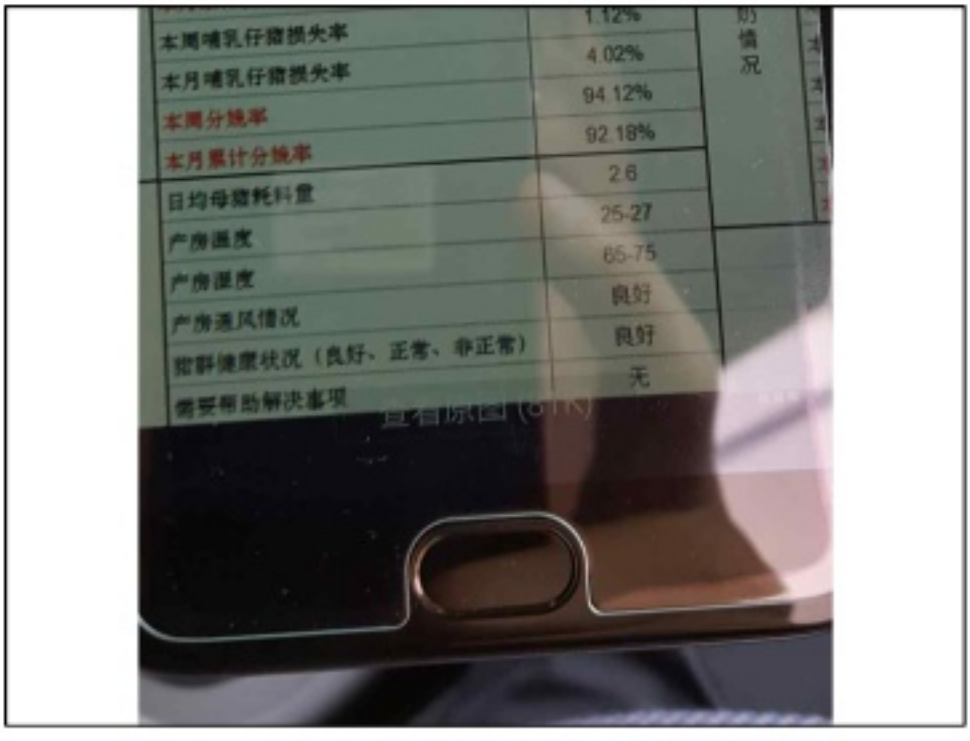



# 중국 양돈의 현상

- 대규모 양돈기업의 확대: 모돈10만두, 50만두 이상의 기업 양돈장
- 생산성 노력: 기업양돈 MSY25두, 분만율 90%
- 젊은 기술자 육성
- 농장확대후 주식상장
- 종돈, 시설, 기술에 적극적인 투자

# 중국의 양돈 대기업 확대 중

- Wens
  (연간 1700만두 이상 출하, 5000만두 목표 확장)
- CP (모돈60만두, 출하 1500만두 추진)
- Muyuan (모돈46만두, 분만율 90% 이상)
- Baodi
- Chuying
- Zengbang
- COFCO
- New Hope




山东正大畜禽有限公司
Shandong C.P.Livestock

























