## Economic Decision Modeling in Asset-Light Projects Cost Leadership, Good Farming and Sales, and Win-Win Result

Science-driven solutions

Reported by: Chen Fangzhou October 22, 2023 Leman China Swine Conference

### CATALOG

#### 提高人类生活品质

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PART04. Pigs sold well at a good price (settlement program, pre-settlement) PART05. Win-win result (companies and farmers, companies and services, service directors and administrators)

PART06. Summary - raising profitable Pigs, understanding losses and making steady profits

## PART 01 Introduction to asset-light projects Science-driven solutions®

## I. What is light asset

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(1) Fixed Asset Partnership + Floating Rent Model;

(2) "Company + Farmer" farming model;

(3) Fixed asset leasing model;

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(4) Muyuan's contract system (co-creation partnership with shared benefit) - certainly an innovation Science-driven solutions® (1) Assets: flexibility, restructuring of surplus assets, risk-sharing

- (2) Funding: stable cash flow and holding the bottom line of costs (who makes it to the end?).
- (3) Management: upgrading to achieve systematic replication. Big but not strong, small but weak abound
- (4) Personnel: steep drop in labor costs, hiring people working in the field instead of speaking in the hall

### III. Current main business model? 提高人类生活品质

# Muyuan: an integrated model of self-breeding, self-multiplication and self-feeding (under constant innovation)

The company builds their own farms, unifies the procurement of feed and vaccines, hires farmers to centralize all production processes such as breeding and multiplication, cultivation of piglets, and fattening of hogs, and pigs are sold to end consumers through one channel.

#### Wens: "company + farmer" model

The company is only responsible for breeding pigs and piglets, and entrusts the farmers to fatten the commercial pigs. In this way, the company doesn't have to bear the cost of building hog houses, and passes on the cost of hog houses by *Science-driven solutions*, and the company provides them with piglets, technical guidance, feed, veterinary drugs, vaccines and unified sales.

Both models have their own advantages, but with the outbreak of African swine fever in 2018, the advantages of the integrated model began to come to the fore; however, the recent prolonged period of low hog prices has given the asset-light model some room to grow.

### **IV. Comparison of operating modes?** 提高人类生活品质

model	asset-heavy business	asset-light operation
land resources	Need to reserve land in the company's strategic	No need for reserves, develop with idle capacity in
lanu resources	development areas, which is costly	industries around the development area
funding	Heavy capital requirements (fixed asset	No investment in fixed assets, expenses in the form of
requirement	investment requirements of 40,000 yuan/head)	rent or floating rent, low capital requirements
entry threshold	Funding, personnel, environment and other high	Direct access, easier
development	Long investment time, at least 2 years from	Short cycle time, about 6 months from project search,
cycle	construction to start-up operations	identification to implementation on the ground
risk control	(Environmental, financial, etc.) Operator's sole responsibility, high risk	Shared and controlled risks for both partners
Fattening efficiency	comparatively strong ce-driven sol	utions <sup>®</sup> weaker
capital return	Slow cycle time, slightly higher returns	Fast cycle time, slightly lower return
Management difficulties	controllable	A lot of uncontrollable
operating system	Standardized, replicable and easy to manage	Poor standardization and high demands on management systems

## **PART 02**

## **Cost leadership** - ASF is the red line, cost is the science-driven solutions® bottom line

#### I. Pigs are difficult to raise



> Cost leadership: less loss at low hog prices, making more profit at high hog prices;

Simplified pig farming: automation, intelligence and others, these may be good tools, but the problem is rather more, how to solve the problems that create problems.

### II. Pigs are not selling well

#### Is it better to bet on the market or focus on the cost when there is no obvious black swan in sight?



# Core indicators

#### **III. Pig cost components, the direction of our efforts** 提高人类生活品质

(5) 营业成本构成

产品分类

单位:元

	7	2021 年	11	2020年	E.	
产品分类	项目	金额	占营业成本 比重	金额	占营业成本 比重	同比增减
生猪	饲料	36,006,634,625.65	58.12%	11,547,974,270.92	55.28%	211.80%
生猪	职工薪酬	8,953,144,425.65	14.45%	3,260,972,489.06	15.61%	174.55%
生猪	折旧	6,281,603,766.88	10.14%	2,185,116,808.08	10.46%	187.47%
生猪	药品及疫苗费 用	Science-di 3,189,004,764.67	iven solu 5.15%	tions <sup>®</sup> 1,142,895,562.23	5.47%	179.03%
生猪	物料消耗	2,373,389,205.63	3.83%	796,017,564.20	3.81%	198.16%
生猪	燃料与动力	1,819,051,743.56	2.94%	560,542,277.46	2.68%	224.52%
生猪	其他费用	3,328,810,893.07	5.37%	1,397,782,520.43	6.69%	138.15%
生猪	合计	61,951,639,425.11	100.00%	20,891,301,492.38	100.00%	196.54%

#### IV. Cheap sows and piglets with flexible and efficient feeding patterns $_{le}$ $_{le$

company	current cost	target cost at the end of 2023
Muyuan	7.15	Below 7.0
Wens	8.1-8.2	Below 8.0
New Hope	8.3	Below 8.0
Tech-bank	9.0	About 7.0
Dabeinong	8.5	Below 8.0
Aonong	-	Below 8.5
Tecon	8.5	Below 8.25



#### Costs are down:

1. Improved breeding performance and increased apportionment;

2. Reduced feed costs: soybean meal protein substitution, etc.

3. Marginal costs

+ C antestanta

Muyuan's 2-way rotational crossbreeding provides a lot of cheap gilts (**breeding-fattening conversion**); excellent results after 2-way rotational crossbreeding; disposal of cull sows: 15% sold to big companies through sows, sows with piglets (retailers don't trust and buy less); 85% sold to slaughterhouses. Partly sold at the price of fattening pigs, partly sold at the price of cull sows.

The equivalent of raising a big fattening pig and providing 10 or more piglets per year, which is a big reason for the low cost. https://mp.weixin.qq.com/s/vmO21QO0\_J578uSa9J1uVg?from=industrynews&ve rsion=4.1.9.6012&platform=win

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X		s://my <del>mg.m</del> 管理平台			2100项指标		
	📚 牧原	當理/円	a) <i>des 198</i> 2005 a	1场设计 建设 采购 词料	中波 使康 养猪 环保 用	中 明然 智能化 😽	1964 🥃 G 🖞 🛛
J.	HARRIS ME	ha Al	副机 公雅 后备 有	种田 乳母 乳糖 仔豬	肥猪 健康管理 品质	嗣体 肉质 基因生产力	指标提案
	架构 ④子公	司片区	2023-03 (R2023-03	121			
	Ven	SQN	存在 (方法) 3951	基础母猪数 2023-03-31 (万头) 285	单元利用率 71% 年度目标: 90%	单元满产率 76% 年度目标: 90% 76%	非瘟损失率 0.83%
	南阳山东	a v a v	初配日齡(天) 227 年度目标: 190	2023-03~2023-03 <b>母猪更新率 83%</b> 年度目标:90%	2023-04-17 母猪内循环场占比 1.55% 年度目标: 100%	母猪流产率 1.30% 年度目标: 0.50%	2023-03~2023-03 年产胎次 2.34 年度目标: 2.4
	安徽	A.V	标杆: 208 江西   第后: 247 山西	标杆: 127% 甘。   藩后: 0% 西川	864F 5 19% 篇后 0% 說例	榆杆: 0.84%	标杆: 241广西 储后 213 辽东
	黑龙江	A 🗸	<b>分娩率 88.3%</b> 年度目标:92%	2023-03-31 窝均活仔数 12.67 年度目标 13.5	<b>窝均断奶数 11.89</b> 年度目标:13.2	21日齡校正末重(kg) 5.74 年度目标: 6.5	2023-03-2023-03           PSY         年度目标32         28.3           MSY         年度目标30         25.0
	吉林	A.V.	板杆: 92.5% 落后: 77.6%	标杆: 13.89 位.  谜后: 7.40 甘泉	砺杆: 12.43 缴。 海后: 11.09 辽。	振杆: 6.16 飛车 落后: 5.14 册州	母猪年产肉-180d校正707.4
	内蒙古豫北	a v a v	2023-03-2023-03 商品肉猪公斤成本 15.83 (元/kg)	448 2023-03-2023-03 432	(2023-04-17) 日死亡率-在群 0.64%。	<b>仔猪日增重-结算</b> (g) 408 年度目标: 430	肥猪日增重-结算(g) 800 年度目标: 900
	云南	2~	标杆: 14.66 南. 落后: 20 20 辽	人均饲喂量 人均服务量	乳猪 仔猪 肥猪	标杆: 459 RFF 落后: 374 山西	标杆: 861 宛东 (蕃岳) 750 山西
	广西	R ¥	120Kg头均物料及维修成本24.69	2023-03-2023-03 头均全折旧成本 172.96 (元/头)	<b>全程成活率 84.2%</b> 年度目标: 94% 95.2% 93.9% 94.1%	<b>仔猪70日齡校正末重</b> (kg) 23.2 年度目标: 27	肥猪180日齡校正末重(kg)108.5 年度目标:120
	京津翼	2 V	标杆: 14.04 页面 薄质: 48.60 辽西	标杆: 140.19 幣倍: 289.76	乳油 仔猪 肥猪	标杆: 25.8 宛东 落西: 21.4 江西	标杆: 117.5 第二
	豫东南	,P. V	<b>胴体一二级比例</b> 95kg-100kg 71.34%	<b>瘦肉率</b> 95kg-100kg 53.55%	120kg全程料比-结算 2.92	188 天 116 kg	标准肥猪比例 84.08%
	江西	A V	95kg-100kg 71.34%	100kg-105kg 53,10%	49円230 開始 第后3.05 LL地 1.74 2.94 仔猪6-30kg 肥猪30-120kg	上市日龄 上市均重	
	489-610	0.52	roung roung 70.13%	100Mg-103Mg -53.10%	to see a contraction to only		小体重 12.45% 轻质 3.47%



## VI. Failure in control the outbreak, and reluctance to cull sows, preferring to passively depopulate?

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	Sow farm producti	on cost statistics				
	normal pr	oduction		abnormal product	ion	
	annual cost	monthly cost	monthly cost	3 months decontamination	2 months of repopulation	Total costs during repopulation
Feed	4000	333	0			
Labor, management	1000	83	83	249	166	
Barn rent/depreciation	1250	104	125	375	250	
Utilities/anti-ASF/supporting	250	21	50	150	42	
Boar, gilt apportionment	500	42				
Sow medicine and vaccine, equipment	700	58	1 Can			
Piglet vaccine, medicine and equipment	1300	108	曼中			
Total	9000	750	258	7774	458	
Cost of 2,000 pigs				1548000	916000	2464000
		Science	e-driven so	plutions <sup>®</sup>		
Remarks: pig-related costs are no lo repopulation period did not mak immunization in the second mo	e adjustments, due to	o the pens during o	decontamination	need more people, peo	ople responsible for ma	ating start participating in the
	, 201110 01 110 per		decontaminatio	Ũ	r, boine	

Sow culling residual value											
Average weight, KG	Sow/fattening pig price ratio	Equivalent to the weight of a fattening pig	fattening pig price	sum of money	Number of sows culled	Amount of sows culled, yuan					
200	70%	140	17	2380	2000	4,760,000					

## VI. Failure in control the outbreak, and reluctance to cull sows, preferring to passively depopulate?

	1		1	8 / I		v		,	8
	headcount	weight	day of age	first month	second month	third month	fourth month	fifth month	sixth month
Batch 1	1000	130	210	Confirmation of gilts, partial vaccination	Breeding started, corresponding to 400 deliveries	Breeding: corresponds to 400 deliveries			Delivery of the litter and entry into the normal production process
Batch 2	500	90	150	Confirmation of gilts, immunization according to standard procedures	Immunization according to standard procedures	Immunization according to standard procedures	Breeding: 400 deliveries		
Batch 3	500	65	120	Confirmation of gilts	Confirmation of gilts, immunization according to standard procedures		Immunizatio n according to standard procedures	Breeding: 400 deliveries	
Batch 4	500	40	90	Confirmation of gilts	Confirmation of gilts	0,	Immunizatio	Immunization according to standard procedures	Breeding: 400 deliveries

#### Gilt production program, sow production cycle of 5 months, gilt volume per month

Gilt program, introduced in day-age weight stages, so as to avoid wasted costs due to wasted days of gilt rearing Batch 1 pigs transferred to sow farms after breeding and other batches transferred to sow farms after completion of immunization, batch by batch to avoid greater losses caused by decontamination failure, batch 1 pigs to catch up with the production schedule

#### **Gilt development costs**

	headcount	weight	day of age	Gilt markup	fattening pig price	Amount of gilts	Immunizatio n and health care for gilts 100 RMB/head	Average deily	Average price of feed	Number of days of feeding	Amount of feed	Amount of gilts to be culled	maintenance allowance	total cost	average cost
Batch 1	1000	130	210	200	17	347000	100000	2.5	3.45	150	1293750	448000	225000	1517750	1965.75
Batch 2	500	90	150	200	17	153500	50000	2.6	3.6	150	702000	224000	58500	740000	1928
Batch 3	500	65	120	200	17	141000	50000	2.5	3.67	150	688125	224000	78000	733125	1914.25
Batch 4	500	40	90	200	17	128500	50000	2.3	3.67	150	633075	224000	97500	685075	1818.15
Total	2500					770000	250000				3316950	1120000	459000	3675950	1918.38

## VI. Failure in control the outbreak, and reluctance to cull sows, preferring to passively depopulate?

	take 5 months and cost about 1.03 m				• • • •
С	Class	7kg piglet	7kg breeding pig	difference	note
inv	entory	22	00		
7kg purc	hased price	250	350	100	
	creep feed	26	26		
	nursery feed	128	128		
feed	small piglet feed	125	125		
Iccu	medium pig feed	362	362		
	gilt/large pig feed	486	560		
	Subtotal	1127	1201	74	
Farmers' pr	rocessing fees	250	300	50	
Difference in sale	es price (yuan/catty)	8.5	8.1	-0.4	
Total d	ifferences			72.1	

The difference between raising two-way crossbreeding pig and three-way crossbreeding pig is about ¥720,000

1. piglet price difference of 100 yuan, with 98% of marketing rate, average weight of 130 kg, two-way crossbreeding pig is lower than two-way crossbreeding pig by 0.8 yuan/kg;

2. in accordance with the August feed prices, according to the feeding program, the pig of 130 kg consuming 150 kg feed, and consuming 170 kg feed in total after the appropriate adjustment of the gilt by increasing 20kg feed; feed difference of 74 yuan / head

3. settlement of processing fees, normal price is 250 yuan / head, the gilt rose to 130 kg, is expected to take 200 days, in accordance with the 1.5 yuan / head / day, is expected to cost 300 yuan / head

Class	idle time	sum of money		
Depreciation of fixed assets	5	99		
Long-term amortized expenses	5	5		
total		103		

#### VII. Still using the old model of chicken-egg and egg-chicken?

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**Production Indicators** 

Class	No.	Indicator name	unit	Number (years)	Number (months)	note
		Inventory (farrowing				
	1	sows)	head	2000	2000	
	2	1	head	12.00	12.00	
	4	parity per year	parity	2.35	2.35	
	5	Farrowing number	head	4700	392	
	6	mating number	head	5529	461	
Reproduction	7	birth rate	%	85	85	
indicators	8	Born alive	head	56400	4700	
	9	weaned piglet	head	53016	4418	
	10	Feed consumption of breeding pigs	kg	2300000	191667	
	11	Lactating piglet consumption	kg	22560	1880	
	1	Lactating piglet survival rate	%	94%	94%	
Indicators of survival rate	2	Conservation survival rate	%	97%	97%	
	3	Fattening survival rate	%	97%	97%	
	1	Nursery final weight	kg	25	25	
	2	Nursery F/G	/	1.80	1.80	
kennel	3	Nursery FI	kg	1712470	142706	
	4	Number of nursery transfers	head	51426	4285	
	1	Fattening market weight	kg	130	130	
	2	Fertilizer F/G	/	2.90	2.90	
fattening house	3	Fattening Consumption	kg	15189299	1265775	
	4	Number of market pig	head	49883	4157	
	1	PSY		26.51	26.51	
	2	MSY		24.94	24.94	
Composite indicators	3	Cost of drugs	Yuan/mar ket pig	100	100	
	4	F/G for the whole herd		2.96	2.96	

#### List of input budgets for a 2000-sow project

item	March	April	May	June	July	August	Sept.	October	Nov.	Dec.	January	total
Upfront costs and minor renovation	150											150
rents	0		500									500
deposit	0		50									50
Introduction costs	660	0	0	0	0							660
Feed costs	20	59	59	54	58	63	69	100	168	277	392	1319
Veterinary drugs, vaccines, etc.	4	4	9	4	4	8	22	55	36	55	72	274
Labor and other costs	8	10	12	16	20	24	32	36	36	40	44	278
Subtotal investment (¥ million)	842	73	630	74	82	96	123	172	240	372	508	3212
Breeding stock situation		2200	2200	2150	2133	2111	2090	2069	2049	2028	2008	
Lactation stocking situation	X		FM				4418	4418	4418	4418	4418	
Small Fertilizer Inventory Situation								2099	4197	6627	6627	
Big fat stock situation	e-driv	ien so	olutio	ns®					2036	6107	12535	
Sales	Mating fr from Apr	•	June 2024	, small fe	rtilizer ca	n be sold f	from Nov	ember, lar	ge fertiliz	zer is expo	ected to be	sold

#### **Focused Analysis:**

 Overall operational assessment of the project; 2. Reassessment of financing capacity; 3. Production budget forecast by average value and full assessment of production risk; 4. Complete investment analysis;
 Long-term operational analysis; 6. Risk analysis under extreme low prices (ASF red line, cost floor);
 Alternative investment simulation analysis; 8. Asset risk analysis: liquidity; 9. Integration of overall development strategy; 10. Simulation of flexible production rhythms.

#### VIII. And that's a loss? It's still a huge loss, unsustainable?

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#### Currently, the base price of piglets is 200 yuan per head, and the cost of market pig after April is estimated at 6.7.

Table I: Indicator quotas

item	quota
survival rate	95%
Marketing rate	93%
F/G	2.59

Table 2: Unit price of feed

Feed varieties	Rationed quantity (head/kg)	Price (yuan/ton)	Amount (yuan/head)	note
Creeping feed	5	5288	26	
nursery feed	30	4387	132	
piglet feed	50	3557	178	Feed Prices in September
medium pig feed	100	3413	341	
Large pig feed	135	3302	446	
Subtotal	320	子受了	1123	

Table 3: Fattening Pig Cost Quota

	item	Cost per catty
1	Average listed weight (kg)	130
	Base cost of pigletsence-0	r <sup>20</sup> en solutions
	Freight of piglets	19
	Apportioning the cost of piglet deaths	11
	feed	1123
	Feed freight (average price ¥ 60/ton)	19
headcount	veterinary drug	50
	manufacturing cost	66
	Gross margins for farmers	230
	funds occupancy charge (accountancy)	35
	insurance claim	-9
	Subtotal	1744
Cost of	f sales per catty of fattening pigs	6.7

### IX. Path to cost leadership

- The pig industry has became more intensive, and pig farming competition has developed from a capital-driven pattern under the high pig price cycle to a cost-oriented pattern under the low pig price cycle;
- $\succ$  Low-cost pig farming should be a two-pronged concept of "safety (R)" and "efficiency (C)";
- In safe pig production: production safety is the foundation, environmental protection and safety is the red line, ASF prevention and control is the bottom line, other production health management issues are the focus, and talent is the core;
- Efficiency Improvement Focus:
- Sow efficiency: breaking down key production goals and guarding core technical processes;
- Fattening efficiency: feed management is the key point, good procurement(raising), management and sales is indispensable.

Cost breakdown of commercial pigs				
Feed, 65%	1300			
piglet cost, 23%	450			
production costs, 10%	200			
Vaccines and veterinary drugs, 2%	50			
Total 100%	2000			

COST BREAKDOWN OF FATTENING PIG

Scienfeed & piglet cost production cost vaccine and equipment



The feed share is about 65%, and adding the feed share of piglet costs, the total feed share is about 75%.

### IX. Path to Cost Leadership -- Efficiency and Safety 提高人类生活品质

- **(1)** Efficiency is key, reducing unit cost is the result, and improving efficiency is the primary consideration.
- 2 Cost reduction does not necessarily increase efficiency, but efficiency improvement can reduce costs.



High output is only possible with healthy pigs.

- Health affects sow estrus rate and farrowing rate; health affects sow litter size;
- Health affects FCR; health affects survival rate, etc.

## **PART 03**

## Healthy pigs fed with less efforts - production safety, biosecurity, production performance, health management, cost control

### I. Production safety

•

- You only live once, and safety is for every family!
- Behind every rule and regulation are countless lessons paid for in blood.
  - The lessons learned from every safety incident are painful.

Accidents are not big or small. It is entirely possible that some small things or small negligence can cause huge accidents and losses. Therefore, it is necessary to follow the safety production procedures, only safety, is the benefit.

Safety first, prevention first!

- V. Psychological state of persons prome tonunsafe actsolutions ®
- VI. Essential elements of accident initiation

• IV. Eight prohibitions on production safety

• I. Importance of training in production safety

• II. Concepts and theories of production safety

• VII. Five stages of accident prevention

• III. Ten concepts of safety management

- VIII. Institutional safeguards for production safety
- IX. Insights from clinical cases
- X. Focus on production safety precautions
- XI. Summary



#### **II. Assessment of cooperating parties**

item		rank	score	Content of the assessment	Scoring requirements		
Background information	Related formalities	А	15	Availability of EIA report; land transfer contract, filing of facility agricultural land, EIA acceptance requirements; business license; animal epidemic prevention certificate; breeding livestock and poultry business license; sewage license; non-basic farmland certification documents; sustainable operation capability;	No EIA report or approval document is directly excluded, if there is, points will be added according to the availability of favorable documents in descending order.		
on pig farms (30 points)	Owner's background	В	5	Including owner reputation, local influence; financial debt issues, etc.	Good reputation with owners; no credit or debt problems (0-5 points)		
	peripheral relations	В	10	Local government policy, no-farming zone division; neighboring farmers relationship; environmental protection treatment of the rationality of the dissipation area; peripheral flow of land reserves, etc.	n Suitable area, 5 points for good policy; 3 points for owners who can handle peripheral relationships; 2 points for having a large amount of transferred land;		
	perimeter biosecurity	A	15	Knowledge of other farmers/farms, meat markets, slaughterhouses, non-hazardous treatment plants, outbreak sites and other high-risk sites within 3 km, as well as various transportation routes; set up buffer zones around them; and conduct research on the prevalence of diseases on and around the site;	High-risk sites such as farms are rated within 1-3km; the greater the number, the lower the score; the closer the score, the lower the score;		
	Decontamination and drying room	В	10	Equipped with off-site vehicle decontamination and drying equipment capable of treating high-risk vehicles;	Effectiveness of decontamination and drying of various types of vehicles based on the reasonable location of decontamination and drying points (5 points)		
Pig Farm Environment (60 points)	pigstering area	В	10	The principle of the pig transfer area is more than 3KM from the pig farm (depending on the situation of the peripheral area); the clean and dirty area is distinguished by the line or physical partition; the vehicles of our transfer and the vehicles of the customers are strictly parked in accordance with the area; the transfer area and the surrounding area have the ability to be disinfected on a regular basis.	The further the staging area is from the location within reason, the higher the score (0-5 points); construction rationality and ability to prevent crossover and disinfection (5 points)		
(oo points)	feed lot	С	10	Evaluate the distance and distribution cost of feed yards, and require convenient feed supply; if it is an external feed yard, evaluate the biosecurity of the feed yard, and require vehicle decontamination and drying equipment, and special trucks for distribution;	Feed mill biosecurity rating (5 points)		
	Water, electricity	A	10	Water resources are plentiful and not a biosecurity risk; assessment of power supply equipment to meet peak electricity consumption with a power house;	Meet the requirements of pollution-free food livestock and poultry drinking water quality NY 50272001, can be tested in accordance with the requirements; need to ensure sufficient water supply in the dry season. Total water consumption (per head): 25 liters/day for sows, 10 liters/day for fattening pigs, 5 liters/day for nursery, for estimation. The water consumption of pig farms using flushed or dry manure needs to be increased by 20% on the basis of this estimation. (10 points if the quantity meets the standard and the water quality meets the requirements; 5 points if the quantity cannot supply the peak quantity: 0 points if the water quality does not meet the standard)		
	Design of clean sewers	В	5	Approach roads; off-site clean and dirty roads are strictly separated and do not cross.	The approach road meets the 30t weighing, 9.6m big vehicle passing (3 points); the clean road and dirty road are separated (2 points), not separated (0 points);		
	enclosure	С	5	Pig farms are separated by a solid fence (over 2m in height) and are not shaded by trees.	Hog farms with fences, no breaks, no trees around (5 points); fences and trees (3 points); no fences (0 points)		
	Independence of the four districts	В	5	Management areas are moved out; isolation areas, living areas, production areas are strictly separated and clearly differentiated and blocked across areas	Districts are independent with strict partitioning (5 points), districts are independent without partitioning (3 points); districts are disorganized (0 points)		
Living quarters requirements	Personnel bathrooms	В	5	Each area is equipped with a bath room, clothing storage room, laundry room, non-crossing, well-designed, with good bathing conditions	One-way flow in bathrooms with no crossover (5 points), no bathrooms (0 points); bathrooms available but crossover present (3 points)		
(30 points)	Sterilization room	В	5	A separate room for sterilizing items and the ability to sterilize foreign materials;	Disinfecting room and no crossover (5 points); Disinfecting room but crossover (3 points); No room for disinfecting items (0 points)		
	service	В	5	The cafeteria, various functional storage rooms, and bagged material storage rooms are constructed in the external living area and do not intersect with the internal living area;	Catetoria moved out and not intersecting with living quarters (5 points); cafeteria moved out and intersecting (3 points); cafeteria in living quarters and intersecting (0 points)		
	Internal vehicle decontamination points	В	5	Separate internal vehicle decontamination points and storage areas, with no intersection with other vehicles (staff vehicles, outside farm vehicles, etc.)	Internal vehicle decontamination point (5 points), no internal vehicle decontamination point (0 points)		
	Structure of pigsties	В	15	Hog barns are required to have connecting corridors, be enclosed, or meet the need for enclosure through low-cost retrofitting, and be able to block the spread of outside biological vectors;	Closed corridors in accordance with the requirements of modern pigsties, airtight pigsties that can effectively block biological media (15 points); pigsties airtight without corridors (10 points); pigsties airtight without corridors (0 points)		
	Feeder lines and manure removal	В	15	Modify or have a transfer tower to implement off-site feeding; have an automatic feeding line, fully or semi-seamless barn floors to reduce the frequency of human contact with pigs.	With staging towers (5 points), with automated material line and operational (5 points); full leakage (5 points); half leakage (3 points); solid floor (1 point); water closet (0 points)		
	Ring control system	В	10	With ventilation, wet curtain, heat preservation and other basic equipment, with automatic environmental control system equipment is better, can provide the ideal pig production conditions	e Reasonable fan layout (2 points); wet curtain (2 points); insulation equipment (2 points); with temperature control probes and other environmental control facilities (4 points)		
	process	В	10	Reasonable layout, able to follow the production operation process; preference for two-point farms (sow farms with a size of 800-3,000 head, and fattening farms with an inventory of no less than 10,000 head); one-stop farms are not recommended (separate discussion for those with exceptionally excellent conditions)	Sow farms with reasonable layout of mating and farrowing houses, 1,000-2,500 heads (10 points), 800-1,000 heads or 2,000-3,000 heads (6-8 points), and less than 800 heads (0 points); fattening farms with reasonable layout, with access for catching pigs, and with stocking scale of more than 10,000 heads (10 points).		
Production area requirements (80 points)	Pens	В	10	Well-designed to follow a large batch production pattern with all-in, all-out; with a gilt breeding house with group self-renewal capability; Sow farms: isolation, farrowing, gestation, and boar housing areas are relatively separate; Fattening farms: no crossover between nursery and fattening, uniform design standards	Can be produced in 3-week batches or 4-week batches and meets the all-in, all-out principle (5 points); There is a gilt isolation house, and the layout of mating, farrowing, etc. is reasonable (5 points)		
	Pig-out design	С	5	With easy access to catch pigs, normal pigs are separated from abnormal pigs on the exit platform;	There is a hog catching lane (3 points); abnormal and normal hogs are separated at the exit table (2 points)		
	Environmentally friendly and environmentally sound treatment equipment	В	10	Supporting environmental protection facilities; and environmentally sound treatment equipment or sites;	Environmental protection facilities: collection ponds, sewage treatment ponds or treatment facilities, sedimentation tanks, emergency pools, etc.; sewage treatment capacity: according to the stock of 5,000 heads, the daily sewage treatment capacity of 70-80 tons; dry manure has a solid-liquid separator, dry manure dumping site or stacking shed; treated sewage has a site for abatement (planting land, woodland, or other abatement pathways); equipment for harmless treatment of dead pigs. (2 points each)		
	quality of work	с	5	Evaluate the quality of work such as roof racking, fencing, leaky panels, and environmental control systems to prevent increased operating costs at a later stage;	Light steel structure is not excellent, brick and wood shingle structure is average, asbestos shingle or other materials are poor, the roof and walls are not broken; the pig house is an airtight pig house, the sow house and nursery house must be closed pig house; birthing and nursery house preferably has a suspended ceiling; the pig house walls do not have holes, open ditches; windows can be closed and sealed; there are airtight sewage ditches or sewage pipes. (1 point each)		

#### **III.** The right time to enter



cos	t of ma	se price of pigle arket pig after A				The price of pigl yuan, predicted piglets not excee	tha
Table I: Indica	tor quot	quota				Table I: Indicator quot	
survival r	ato	95%				item	
marketing		93%				survival rate	
F/G	auo	2.59				fig. upright and trustworthy	
Table 2: Unit p	rice of f	eed				F/G	
	Rat	tioned quantity	Price	Amount		Table 2: Unit price of fe	eed
Feed varieties	(	(head/kg)	(yuan/ton)	(yuan/hea d)	note	Feed varieties	Ra
feed		5	5288	26		feed	
nursery feed		30	4387	132		nursery feed	
piglet feed	776	50	3557	178	Feed Prices September	piglet feed	
medium boar		100	3413	341	Feed Prices	medium boar	
hogwash		135	3302	446		hogwash	
Subtotal	<b>G</b> H	<b>320</b>		1123		Subtotal	
Table 3: Fatter	ing Pig	Cost Quota				Table 3: Fattening Pig	
	item		Cost per catty			Average l	iten
Averag	e listed	weight (kg)	130			Average	isteu
cionco	Bas	e cost of piglets	<b>200</b>	)			-
cience	Fr	eight of piglets	19	ſ			
		tioning the cost of piglet deaths	11				_
		feed	1123				Fe
		freight (average rice ¥60/ton)	19			headcount	
headcount	ve	terinary drug	50				_
	man	ufacturing cost	66				G
	Gross n	nargins for farmers	230				1
		occupancy charge accountancy)	35				
	in	surance claim	-9				
		Subtotal	1744			Cost of sales per	-
Cost of sales p	er poun	d of fattening pigs	6.7			Cost of feed f	tor m

The price of piglet	ts is 450 yuan, corre	sponding to the cost of 7.
yuan, predicted th	at company is comp	petitive with the price of
piglets not exceed	ing 450 yuan	
Table I: Indicator quotas		
item	quota	
	0 = 0 (	

	-
survival rate	95%
fig. upright and trustworthy	93%
F/G	2.72

Feed varieties	Rationed quantity (head/kg)	Price (yuan/ton)	Amount (yuan/head)
feed	5	5134	26
nursery feed	30	4209	126
piglet feed	36	3469	125
medium boar	108	3358	363
hogwash	169	3259	551
Subtotal	348		1191

#### ble 3: Fattening Pig Cost Quota

	item			
Average lis	Average listed weight (kg)			
	Base cost of piglets	450		
	Freight of piglets	10		
	Apportioning the cost of piglet deaths	23		
	feed	1191		
	Feed freight (average price ¥ 60/ton)	21		
headcount	veterinary drug	35		
	manufacturing cost	50		
	Gross margins for farmers	230		
	funds occupancy charge (accountancy)	25		
	insurance claim	-15		
	Subtotal	2020		
Cost of sales per p	Cost of sales per pound of fattening pigs			
Cost of feed fo	r meat production	4.7		

### III. The right time to enter - at the base of their own strength $H_{\rm H}$ a $\downarrow$ $\pm$ $H_{\rm H}$ a $\downarrow$

(Piglet planning: preparedness ensures success and unpreparedness spells failure; do not bet on the market, do not estimate the epidemic; understanding loss and making steady profit)

**Background:** At present, the price of piglets is very low, the future market (especially the selling price) is uncertain, but through the break-even point, the financial bottom line thinking (surviving under minimum loss, cost priority, if the selling price is good, there may be considerable profit) to guide the clinical piglet introduction and production

#### Topics.

1. Break-even calculation of the Finance Department: the purchase price is relatively certain, the production operation is stable, the establishment of economic models, break-even point calculation, the approximate cost, the profit and loss situation under different pig prices.

2. Service Department piglet introduction potential: fully assess its own ASF prevention and control capabilities, cost control capabilities, service department management capabilities, eliminating the potential for piglet introduction of the worthless farmers (especially those who have never made money in multiple batches, etc.) (specific to the next three months, the monthly piglet introduction budget)

3. Sales Department: If the piglet introduciton plan is determined, how does the sales department plan to serve the service department in terms of procurement and sales plan, and what are the management requirements and specifications of the sales department for each work related to service department?

4. Production Technology Department: the whole management system of procurement, transportation, arrival, ASF prevention and control, cost control, piglet management and so on.

						1				
months	January	February	March	April	May	June	July	August	September	October
Average price	7.3	6.9	7.1	7.1	8.0	8.3	9.5	10.1	10.4	8.0
Basic price of piglets	327	344	250 Scier	200	200	200	200	200	200	484
Projected costs	7.2	7.3	6.9	6.7	6.7	6.7	6.7	6.7	6.7	7.9
Average weight of market pig	260	260	260	260	260	260	260	260	260	260
Gross profit per head	24	-94	54	108	348	419	738	892	970	31
Corresponding number of batches of piglets	9812	11741	11763	0	0	0	0	0	0	19626
Marketing rate (95%)	9321	11154	11175	0	0	0	0	0	0	18645
Profitability of the Service Department	22	-104	60	0	0	0	0	0	0	58
Number of piglets planned for the future										

#### IV. Adapting to local conditions - selecting good breeds 提高人类生活品质









#### 



VI. Economic decision-making model for performance

#### - sow farms

#### > Impact of increased farrowing rate on cost

Item	Up 1%	Reality
Sow size	1,460 heads	1,460 heads
<b>Farrowing rate</b>	86%	85%
Farrowing litters (year)	2,888	2,857
<b>Production (year)</b>	34,978	34,603
Piglet birth cost	214	216

The impact of each 1% increase in the farrowing rate: 1. The number of total born per year rises by 375 heads (annual production decreases), affecting the total cost by 81,000 RMB/year (375  $\times$  216 RMB/head); 2. Birth cost decreased by 2 RMB/head; (birth cost per head 216 \* annual production 34,603 /1% Science-driven solutions<sup>®</sup> increase of farrowing rate i.e. 34,978 head - single head cost 216; 3. Opportunity gain of 125,000 RMB: 375 heads \*

88% survival rate = 330 heads  $\times$  market price at 380 RMB/head;

### VI. Economic decision-making model for performance sow farms

#### > Impact of healthy piglets per litter on cost

Item	Up 0.1	Reality		The impact of every 0.1 head rise in the healthy piglets
Sow size	1,460 heads	1,460 heads		per litter: 1. Production increases by 664 heads (annual
Healthy piglets per litter	12.2	12.1		production of 35,267 heads - annual production of 34,603 heads), and the total cost saved is
<b>Production (year)</b>	35267	<b>34603</b> Science	e-driv	<ul> <li>¥ 143,400/year; (664 heads × 216 ¥ /head );</li> <li>2. Cost of birth decreased by ¥ 4/head (cost</li> </ul>
Piglet birth cost	212	216		<ul> <li>savings/total litter size = 14.34/(664+34603)*10,000);</li> <li>3. Opportunity gain of 125,000 yuan: (664 heads*88%</li> </ul>
			-	survival rate) 330 heads × market price at 380 yuan/head;

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## VI. Economic decision-making model for performance

- sow farms

#### > Impact of replacement rate and gilt utilization on cost

Item	Utilization rate up 5%	Reality
Size	1,460 heads	1,460 heads
Culling rate	47%	47%
Number of gilt entered(year)	720	680
Gilt utilization rate	90%	85%
Number of gilt introduced (year)	800	800

Gilt utilization rate rose by 5%, the farm will introduce 40 fewer heads per year. If the cost of gilt introduced is 1800 yuan / head, the total cost reduction is 40 \* 1800 = 72,000 yuan.

### VI. Economic decision-making model for performance - sow farms

#### > Impact of survival rate of suckling piglet on cost

Item	Up 1%	Reality	The impact of a 1% increase in survival rate of suckling piglet :	
Size	1,460 heads	1,460 heads	1. Weaned piglets increase 346 heads (annual production 34,603 heads*1% survival rate), total cost	
<b>Production (year)</b>	34,603	34,603	saved 147,000 RMB/year; (346 heads × 425 RMB/head)	
Survival rate of suckling piglet	89%	88%cier	<ul> <li>Average death cost of weaned piglets decreased by</li> <li>4.8 RMB/head (14.7/yearly number of weaned</li> </ul>	
Weaned piglets (year)	30,809	30,463	<ul> <li>piglets 30,809*10,000);</li> <li>3. Opportunity gain of 130,000 RMB: 346 heads ×</li> </ul>	
			market price at 380/head;	

# VI. Economic decision-making model for performance - fattening farms

#### > Pathological waste: the impact of nursery survival on cost

Item	Up 1%	Reality	The impact of a 1% increase in nursery survival rates: 1. The increase of 304 piglets sold (annual
Size	1,460 heads	1,460 heads	production of 30,463*1%) will save the total cost of 140,000 RMB/year; (304 head $\times$ 460 RMB/head
<b>Production (year)</b>	30,463	30,463 Scient	cost ); ce-dri 2. The average death cost of piglets sold falls by 4.9
Nursery survival rate	93%	92%	RMB/head; the total cost saved is 140,000 yuan/yearly production of 28,358*10,000;
Piglets sold (year)	28,357	28,053	3. Opportunity gain of 117,000: 304 head×385 RMB/head;

VI. Economic decision-making model for performance - fattening farms

#### > Pathological waste: the impact of fattening survival on cost

Item	Up 1%	Reality		The impact of 1% increase in fattening survival rate:
Size	1,460 heads	1,460 heads		1. The increase of 305 fattening pigs sold (annual piglet production 30,463 *1%, total cost saved
<b>Production (year)</b>	30,463	30,463		625,000 RMB/year; (305 × 2,050 RMB/head/120kg );
Fattening survival rate	92%	cience-dri 91%	ven	2. The average death cost of fattening pigs sold decreases by 22.3 RMB/head (625,000 RMB
Fattening pigs sold (year)	28,027	27,722		cost/yearly sales of 28,026*10,000); 3. Opportunity gain of 500,000 RMB (305 heads×120*13.6 RMB/kg)

#### VI. Economic decision-making model for performance -提高人类生活品质 fattening farms

Profit formula of fattening pig

Weight X price of pig - (cost of piglet + others + feed X average price)

i.e. ADG X pig price > ADFI X feed price

Effect of F/G:

Feed conversion rate

Pigs are weaned at 6 kg and sold at 120 kg, the

weighted average unit price of feed for the whole process is  $\pm 4/\text{kg}$ . What is the economic value of 0.1 of F/G?

(120 - 6) kg x 0.1 of F/G x  $\neq$  3.5 =  $\neq$  **39.9** 

### VI. Economic decision-making model for performance

- fattening farms

提高人类生活品质


## VI. Economic decision-making model for performance fattening farms

#### 提 高人类生活品质

## Optional strategies to reduce feed waste

#### $\sqrt{Physical waste}$

- According to research results in Australia,  $10\% \sim 15\%$  of all feed used in a typical grow-finish pig farm is not eaten at all by the pigs, but is leaked from the troughs or pigs' mouths to the ground or excreted in the feces.

- Ad libitum feeding becomes permissive feeding.

- Feed more without feed, feed less with leftovers, do not feed without eating, and remove spoilage immediately. Container design, feed trough flow adjustment, feed trough length control, feed trough position, bottom tray. If the size of feed trough is not suitable, the daily feed intake of pigs can be 20% less, which will affect their growth.

#### $\sqrt{\text{Environmental waste}}$

- The colder the temperature is, for example, at 10° C, for 100 pigs of 75kg, when the wind speed is 0.45m/s, pigs need to consume an extra 57KG of feed per day to protect yourself from the cold, or else you will definitely suffer from cold stress, which will affect your resistance and growth.

- The minimum critical temperature (LCT) of young sows is around 20° C. If the effective temperature of the animal is below this level, for every 1° C below the LCT, its feed intake must increase by 3.5% (80 g more feed consumed).

#### $\sqrt{\text{Recipe waste}}$

- In the last month before marketing, the removal of mineral and vitamin premixes does not affect performance; amino acid-balanced diets save on protein ingredients.

- Pigs deposit more fat after 80kg, so this is an opportunity to reduce net energy and lysine.

#### $\sqrt{Physiological waste}$

• Fattening pigs every advance (or delay) 1 day out of the pen, can save (or waste) 1.33 kg of feed; if a year out of 10,000 fattening pigs, an average delay of 10 days out of the pen, the maintenance of consumption of physiological waste of 133,000 kg of feed, valued at 554,000 yuan!

- Reducing the marketing weight from 120-130 kg to 115 kg improves feed return.

- Fattening pigs can't be fed like sows, they can be fed more finely in stages.

- A 200 kg sow has a meat exchange rate of about 5.0, and a lactating sow that eats 1.5 kg less feed loses 1 kg of weight - so it takes about 3.33 times as much feed to make up for that loss!

- It takes 5.5 times as much energy to grow 1 kilogram of fat meat as it does to grow 1 kilogram of lean meat

#### $\sqrt{Pathological waste}$

- The four blockages are: blocking pathogens from entering pig farms, blocking pathogens from entering pig pens, blocking pathogens from expanding, blocking pathogens from gaining access to water, and raising the threshold to build a dam.

## VI. Economic decision-making model for performance - fattening farms

- Measuring the cost impact of the "outsourced feed + credit model vs. the third-party processing model"
- > Case in point:
- A company purchases feed externally + the form of credit: feed selling price per ton + ¥ 25, requiring at least 50% of the previous month's payment for feed to be paid in this month (to analyze the impact on cost in terms of the actual amount of feed used in a given month);

	供应商授信期资金成本												
账期	月数	-1-	2	3	4								
饲料价格	3410												
次月付	1705	今丧											
次月付资金成本	12.5			8.1%									
延迟付资金成本	12.5	8.1%	4.4%	2.9%	2.2%								
综合利率	Scier	1 <i>Ce</i> 8.1%j	ven sol6 <del>2</del> %	$ns^{\mathbb{R}}$ 5.5%	5.1%								
综合资金成本		23	18	16	15								

- If you pay 50% of the last month's payment in this month, the subsequent use of 1-month account funds for the combined interest rate of 8%, the use of 4-month account funds in order to reduce the combined interest rate to 5%, so if the bank loan is abundant and the interest rate is low, it is not recommended to use the feed credit;
- If the third-party processing mode is adopted, the price of feed per ton can be saved about 80 RMB, which is the preferred choice when the own capital and company technology are satisfied, and it can reduce the unit cost of each pig by 0.21 RMB/kg.

## VII. Clinical practice - not raising worthless weak pigs

							Farly warning of monthly food cost for nigs at different
A model fo	<mark>r accoun</mark>	ting for t	he value	of Grade	e B-piglet	t rearing	Early warning of monthly feed cost for pigs at different
Object: according to the fa					nting, sow farn	ns is how to do to	stage and weight to detect abnormal farmers in time for
reduce the B-grade piglet,	-						<u>follow up.</u>
Methodology: Expected or market prices or productio			nents accountii	ng for production	on costs, corres	sponding to expected	In response to the dispute over the settlement, the "IV.
1. Not counting the impa			h as survival i	rate F/G drug	us etc		<u>Financial Settlement Management Code'' has been</u>
1. Not counting the impa		veterinary					formulated for comments:
	piglet	vaccine	feed	Feeding costs	litter weight	Cost (¥/kg)	<b>1. Officially cancel the so-called B-grade piglet management</b>
Normal piglets	380	50		200	120	16.08	settlement norms, because B-grade piglet in fact will lead to
Grade B piglet	190	50	1300	200	120	14.50	huge losses, all financial settlements to pigs whether there is
2. Impact of dead amalg				1			a value for the standard, no value of the pigs out of the
deathbed	Cost ( ¥ /head		Cost ( ¥ /head	deathbed	Cost (¥/head)		determination of the standard specific reference to the
Incoming pigs die	200	late stage of conservation	400	Middle swine	1100		following "four, out of the pig management reference
instantly	200	(e.g. of a plant)	400	stage	1100	夺灵计	standard";
Pre-conservation deaths	300	1 /	600	pig stage	1500		<b>2.</b> Require supply farms to take the initiative to dispose of
		100	ed at ¥ 600/hea				worthless pigs, if the settlement dispute is caused by the
	Impac	t of different d	eadweight rate	s on cost-sharii	ng Scier	nce-driven s	difference in clinical judgment between upstream and
Percentage of deadfall (%)	)10	30	50	70	80	90	downstream farms for worthless pigs, the two farms need to
Cost-sharing of pigs at	67	257	600	1,400	2,400	5,400	communicate and negotiate amicably to reach an agreement;
farrowing (¥/head) Kilogram cost-sharing							if there is still a dispute, submit it to the Production
(¥/kg)	0.56	2.14	5.00	11.67	20.00	45.00	Technology Department for final decision-making, and the
3. Grade B pigs need to c	consume more	manpower, m	edicines and f	feed, at ¥120	per pig, equal	ized at ¥1.0/kg	Production Technology Department will dock with the
4, the genuine piglets rai						ual rate of 15%,	Finance Department, Purchasing and Marketing
more than 14% of the re		<u> </u>	• •	-	•	+0 7-21 2 DMD/1/2	Department and the relevant farms for implementation,
Low survival rate of grad	10		• •	-			and the relevant farms should be resolute in accordance
According to this calcul	ation, when th	e price of pigs	s is above 21.2	yuan/kg, you	can consider f	teeding grade B pigs	with the decision-making process.

## VII. Clinical Practice – Culling pigs doomed to die early 提高人类生活品质

Batch	Number of piglets introduced	piglet weight	average weight of sales	Survival rate	Marketing rate	F/G	Piglet cost								
	2098	7.06					200								
Months	Consumption of veterinary drugs	Feed consumption		Month-end stock	Total weight at end of month	Number of deaths	Weight of	Gross weight of death	Monthly weight gain	Monthly weight gain cost	Average cost of monthly weight gain	Dead pig gain cost	Cost of dead piglets	Total cost of death	Cost of death per head
April	31048.42	125194.2	10	2054	20540	44	8.5	374	6102	156243	26	1690	8800	10490	238
May	29188.95	218706	26	1965	51090	89	18	1602	32152	247895	8	9937	17800	27737	312
June	469.96	309493.5	50	1935	96750	30	- 38 -	1140	46800	309963	7	7323	6000	13323	444
July	608.67	412912	73	1925	140525	10	61.5	615	44390	413521	9	4630	2000	6630	663
August	19001.03	418182	91	1905	173355	20	82 82	1640	34470	437183	13	14461	4000	18461	923
September	9044.28	258106	101.35	1869	189423.15	36	96.175	3462.3	19530	267150	14	33009	7200	40209	1117
total	89361.31	1742593.7				229		8833.3	183445	1831955				116851	

Stage mortality costs include: piglet costs + rolling stage weight gain costs

Weight gain cost: natural month in the month's inventory herd share accounting for dead pigs should bear the weight gain cost of the month, each month's death of the weight gain cost is the cumulative total of the death of the month phase weight gain costs

Cost of stage mortality = cumulative weight gain for each month of mortality stage + cost of piglets

## VII. Clinical practice-improvement of pig uniformity management specification

Stage	Regulatory norms
Piglets in	Piglet transfer for fostering, in accordance with Appendix 1 "Operation process SOP of piglet transfer for fostering" for
the	management; when transferring weaned piglets, according to the weight of large, medium and small pig, preliminary
farrowing	grouping is as follows: less than 4kg is classified as a small pig, 4-7kg is classified as a medium pig, and more than 7kg is
house	classified as a large pig, and in the transfer of piglets in the car will mark the location of the large, medium and small pig
	clearly; in the transfer of pigs to deal with weak and poor piglets, refer to Appendix 2 "Notice on the management
	specification of disposal of culled pigs". Notice on the Management Specification of Disposal of Culled Pigs.
Nursery	Pick up and put off according to the size of pigs in farrowing house. In the nursery, transfer out the slow growing and sick and
	weak pigs and treat every week in time ; the management of the weak pigs need better experienced and responsible personnel,
	better facilities and equipment, better nutrition and more attention; sick and weak pig pens are located at the air outlet, weak
	pigs need weekly transfer, disposal of worthless pigs refer to the Appendix 2 "On the disposal of elimination of pigs".
	Management Specification Notice".
Fattening	When nursery pigs are transferred to fattening farms, mark clearly the big male, big female, middle male, middle female,
	small male and small female pigs on the transfer car; timely culling, weekly disposal of worthless pigs, refer to Appendix 2
	"Notice on the Management Specification of Disposal of Culled Pigs", weekly transferring in a small scale, and
	transferring pigs at the 60, 90, and 120 days of age in a large scale; in accordance with the above basic requirements.
	Prepare empty pens in advance for disposal of sick and weak pigs and uninterrupted transfer of pens; the work of transferring
	pens is a lagging measure to ensure the neatness of the herd. It is a lagging measure to ensure the neatness of the herd. It should
	be combined with the work of inspecting the pens, and the problems are found and dealt with timely in the process of feeding
	to ensure that the fattening pigs can be discharged neatly at the same time point.

## VII. Clinical practice -- worthless pig disposal

Transfer out weight <4kg, severe hoof problems, paralysis, pale wasting (exposed vertebrae), deformities, locked anus, umbilical hernias, scrotal hernias, genetic defects, etc., and dispose of in a timely manner	1. Timely disposal 2. When	Supervisor of	death and culling rate $\leq 6\%$
	turn of amin a anorra		death and cannig rate _ 070
timely manner	transferring groups	farrowing house; farm	
		manager	
60 days of age turn out <15kg serious respiratory, diarrhea, high fever, limb hoof problems, treatment	Every seven days when transferring	Nursery Supervisor;	death and culling rate $\leq 3\%$
for 5 days do not see improvement; timely disposal of umbilical hernia obvious morbidity pigs,	herds, usually Monday particularly	Supervision of Farm	
paralysis, pale and thin (exposed vertebrae), pus pigs do not treat, and immediately eliminated the	unusual, such as dying pigs, disposed	Manager	
major infectious diseases or other worthless pigs	of on the same day		
1. Less than 70% of standard weight during transfer or feeding; 2. Disabled pigs (joint disability,	1. at the time of herd transfer 2. every	Fattening supervisor;	Monthly death and culling rate
broken leg, paralyzed by tail biting, abscess unsuitable for feeding, serious umbilical hernia or	seven days, usually Monday 3.	farm manager	≤1%
testicular hernia, traumatic injury with no therapeutic value, etc.); 3. Stalemate pigs with bad growth	special abnormalities, such as dying		
performance, extremely poor body condition and low weight (serious mismatch of day-old weight,	pigs, disposed of on the same day		
large skeleton with too thin hair, poor hair color, etc.); 4. Diseased and weak pigs (serious gasping,			
emaciation, whitish and mental Poor condition, diarrhea without therapeutic value, long-term sick and			
weak, etc.); 5. Disposal of major epidemics	HT.		
		Mating and pregnancy	
		supervisor; farm	
	month 5. major diseases	manager supervision	
sows with poor motherhood, 2 consecutive bites of piglets, attacking people; 6. Sows with hoof and			
foot disease; 7. Weaned sows that have not come into heat for more than 30 days; 8. Sows that have	1791		
endometritis after delivery or during breeding that cannot be bred; 9. Sows bred twice in a row that			
return to estrus or empty pregnancy; 10. Sow with no estrus for more than 30 days; 8. Sow with	R R		
endometritis after giving birth or during the breeding period can not be mated; 9. Sow with two 1 SO	lutions <sup>©</sup>		
consecutive return of estrus or empty womb; 10. Sow with two consecutive abortions or 3 times of			
abortion in a row or in a total of three abortions; 11. Empty fetus (return of estrus, abortion, empty			
womb) sows are not yet in estrus after hormone treatment for one time; 12. High-breeding-age pigs			
with return of estrus, abortion, empty womb are culled out immediately (8 fetuses or above); 13.			
Ordinary diseases that cannot be recovered after 2 consecutive treatments; 14. Sows that have lost			
breeding value due to other reasons (e.g. sow prolapse, prolapsed anus, disease purification, etc).			
On top of the criteria for fattening pigs and sows culling: substandard immunization domestication for	1. gilt isolation 2. gilt entry 3. pre-	Gilt Responsible	
reproductive disorders, detection of serious disease pathogens Production plan adjustments	breeding 4. post-breeding	Person; Farm Manager	
		Supervision	
On a fattening, reserve and sow culling basis: not meeting the demand for sperm collection with	Boars are segregated into herds and	Boar Station	
serious disease pathogens detected beyond their useful life	checked monthly for overall	Supervisor; Farm	
	performance and pathogen detection.	Manager Supervision	
	<ul> <li>paralysis, pale and thin (exposed vertebrae), pus pigs do not treat, and immediately eliminated the major infectious diseases or other worthless pigs</li> <li>1. Less than 70% of standard weight during transfer or feeding; 2. Disabled pigs (joint disability, broken leg, paralyzed by tail biting, abscess unsuitable for feeding, serious umbilical hernia or testicular hernia, traumatic injury with no therapeutic value, etc.); 3. Stalemate pigs with bad growth performance, extremely poor body condition and low weight (serious mismatch of day-old weight, large skeleton with too thin hair, poor hair color, etc.); 4. Diseased and weak pigs (serious gasping, emaciation, whitish and mental Poor condition, diarrhea without therapeutic value, long-term sick and weak, etc.); 5. Disposal of major epidemics</li> <li>1. sows with litter size less than 7 live piglets in 2 parities; 2. Sows weared 8 or more sows; 3. Sows delivering dead, rotten or mummified fetuses; 4. Sows delivering 2 consecutive fetuses that are difficult to give birth, or incomplete delivery (fetus clothes, fetus not all discharged); 5. Lactating sows with poor motherhood, 2 consecutive bites of piglets, attacking people; 6. Sows with hoof and foot disease; 7. Weaned sows that have not come into heat for more than 30 days; 8. Sows that have endometritis after delivery or during breeding that cannot be bred; 9. Sows with woff and rotter or empty pregnancy; 10. Sow with no estrus for more than 30 days; 8. Sow with endometritis after giving birth or during the breeding period can not be mated; 9. Sow with woff or consecutive return of estrus, abortion, empty womb; 10. Sow with two consecutive abortions or 3 times of abortion in a row or in a total of three abortions; 11. Empty fetus (return of estrus, abortion, empty womb) sows are not yet in estrus after hormone treatment for one time; 12. High-breeding-age pigs with return of estrus, abortion, empty womb are culled out immediately (8 fetuses or above); 13. Ordinary diseases that cannot be recovered</li></ul>	paralysis, pale and thin (exposed vertebrae), pus pigs do not treat, and immediately eliminated the major infectious diseases or other worthless pigs 1. Less than 70% of standard weight during transfer or feeding; 2. Disabled pigs (joint disability, broken leg, paralyzed by tail biting, abscess unsuitable for feeding, serious umbilical hernia or testicular hernia, traumatic injury with no therapeutic value, etc.); 3. Stalemate pigs with bad growth performance, extremely poor body condition and low weight (serious mismatch of day-old weight, large skeleton with too thin hair, poor hair color, etc.); 4. Diseased and weak pigs (serious gasping, emaciation, whitish and mental Poor condition, diarrhea without therapeutic value, long-term sick and weak, etc.); 5. Disposal of major epidemics 1. sows with litter size less than 71 live piglets in 2 parities; 2. Sows weaned 8 or more sows; 3. Sows delivering dead, rotten or mummified fetuses; 4. Sows delivering 2 consecutive fetuses that are difficult to give birth, or incomplete delivery (fetus clothes, fetus not all discharged); 5. Leatating sows with poor motherhood, 2 consecutive bites of piglets, attacking people, 6. Sows with hoof and foot disease; 7. Weaned sows that have not come into heat for more than 30 days; 8. Sows with return to estrus or empty pregnancy; 10. Sow with noo estrus for more than 30 days; 8. Sows with return of estrus, abortion, empty womb; 10. Sow with two consecutive abortions or 3 times of abortion in a row or in a total of three abortions; 11. Empty fetus (return of estrus, abortion, empty womb) sows are not yet in estrus after hormone treatments; 14. Sows that have lost breeding value due to other reasons (e.g. sow prolapse, prolapsed anus, disease pathogens production plan adjustments On to po fthe criteria for fattening pigs and sows culling: substandard immunization domestication for reproductive disorders, detection of serious disease pathogens Production plan adjustments On a fattening, reserve and sow culling basis: not meeting the	paralysis, pale and thin (exposed vertebrae), pus pigs do not treat, and immediately eliminated the major infectious diseases or other worthless pigsManagerI. Less than 70% of standard weight during transfer or feeding; 2. Disabled pigs (joint disability, broken leg, paralyzed by tail biting, abscess unsuitable for feeding, serious umbilical hernia or testicular hernia, traumatic injury with no therapeutic value, etc.); 3. Stalemate pigs with badg growth performance, extremely poor body condition and low weight (serious mismatch of day-old weight), large skeleton with too thin hair, poor hair color, etc.); 4. Diseased and weak pigs (serious gasping, emaciation, whitish and mental Poor condition, diarrhea without therapeutic value; long-term sick and weak, etc.); 5. Disposal of major epidemics1. Before breeding 2. after giving bith 3. after tweaning 4. half or one month 5. major diseasesMating and pregnacy: supervisor; farm manager1. sows with litter size less than 7 live piglets in 2 parities; 2. Sows wated 8 or more sows; 3. Sows delivering dead, rotten or mummified fetuses; 4. Sows delivering 2 consecutive fetuses that are endometritis after delivery (futus clothes, fetus not all discharged); 5. Laetung sows with poor motherhood, 2 consecutive bites of piglets, attacking people; 6. Sows with fioof and for disease; 7. Weaned sows that have not come into hear for more than 30 days; 8. Sows with have endometritis after delivery of during the breeding period can not be braid; 9. Sow birds that have consecutive return of estrus after hormone treatment for one time; 12. High-breeding-age pigs with return of estrus, abortion, empty womb) 10. Sow with no conscutive treatments; 14. Sows that have lost breeding value due to other reasons (e.g. sow prolapse, prolapsed anus, disease purification, etc.).I. at the feation 3. pre- secendage pigs swith ret

## VII. Clinical practice -- tracking drug use of pigs at different stage according to health-care program

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│ 猪 │ 群	目 的	时间	药物	剂量	用药 方式	使用 时间	备注								
小 肥/ 小	抗应 激	转保	健康维他[华扬]+复方阿莫西林	0. 2g+0. 2g/ 头	饮水	5天	<u>二选一,转保前2天,转保</u> 后2天	日龄段	阶段总费用 间	区累	计费用区 ( 头)	间(元/	保健费		免疫费 用
			优乐舒+复方阿莫西林	0.1g+0.2g/ 头	饮水	5天		30-59	8.56-9.7	6	8.56-9.76			6 1. 5-2. 7	
			寒冷季节(10月-次年4月)或阴 雨天拉苗:方案1:姜糖水:每					60-89	8.15-11.2	25	16.71-21	.01	5.0-	8.1	3.15
	抗应激	转保	100头仔猪每天生姜5斤+红糖5斤 +100斤水,煮沸20分钟,晾温后 剔除生姜后喂水,一日一次,喂					90-119	8.0-10.0	)	<b>24.</b> 71-31	.01	8.0-	10.0	
	激		水期间短暂停饮水器; 方案2: 芪 姜粉: 用开水化开,每吨水添加					120-149	5. 3-6. 5		30.01-37	. 51	5.3-	6.5	
			1kg,晾温后喂水,一日一次,喂 水期间短暂停饮水器;				TAS ZELLS	150-179	6. 5-7. 5		36.51-45	.01	6.5-	7.5	
	进苗 3-7 天	防腹泻保健	安普霉素/新霉素/金霉素/粘杆菌 素			A	备选	180-出栏 1.5-2.0 38.01-47.02 1.5-2.0							
	蓝耳、 支原 体	30-50日龄	泰万1kg或替米1.5kg+10%盐酸多西环 素[华扬附咳苏]1kg+板青颗粒1kg或麻 杏石甘散1kg或首药酵抗5kg	按照前面列 出的	拌料	7天	必用,二选一,一般是在进 猪第五天开始,因为有些是 断奶转的,有些是保育之后 转的		Į						
	副猪、 传胸	30-50日龄	20%氟苯尼考粉[华扬呼诺欣]1kg+10 %盐酸多西环素[华扬附咳苏]1kg+板 青颗粒1kg或麻杏石甘散1kg或首药酵 抗5kg	按照前面列 出的	拌料	ī天 Sci	ence-driven so	olutions	R						
	蓝耳、 支原 体	50-70日龄	泰万1kg或替米1.5kg+10%盐酸多西环 素[华扬附咳苏]1kg+板青颗粒1kg或麻 杏石甘散1kg或首药酵抗5kg	按照前面列 出的	拌料	7天	<mark>选用,根据临床实际需要,</mark> 三选一	日龄	疫苗		「家				备注
	副猪、 传胸	50-70日龄	20%氟苯尼考粉[华扬呼诺欣]1kg+10 %盐酸多西环素[华扬附咳苏]1kg+板 青颗粒1kg或麻杏石甘散1kg或首药酵	按照前面列 出的	拌料	7天		日时 14天		<b>种突</b> 苗+灭活		1刘公	<b>免疫方式</b> 颈部肌注	-	ai± 每年4-9月
			抗5kg					<mark>14天</mark>	支原体+圆环 灭 +蓝耳	活+灭活+ 活苗		1 31 //\	颈部肌注		每年10月至 年3月
	<mark>应急</mark>	50-70日龄	<mark>单组方或者西药+中药的双组方</mark>	<mark>具体沟通</mark>	拌料	7天		50-55天		活疫苗			颈部肌注	一 <mark>混合免疫</mark>	
	驱虫	抗炎药使用完, 停药3天,70日 龄左右	乐去从[回盛]	1.5kg/吨	拌料	7天	第一次驱虫结束后,依据猪 群情况,进行加药	63天	口蹄疫	灭活苗		2ml	颈部肌注		
	<mark>应急</mark>	70-110日龄; 120日龄-出栏	保健或者治疗,与生产管理部具体沟 通确认	<mark>具体沟通</mark>					调查征	千业现	, 定	期招标	: 更亲	沂	
	抗呼 吸道 疾病	110日龄	10%盐酸多西环素[华扬附咳苏]	1kg/吨	拌料	7天	1、三种药物同时使用;2、 本方案针对正常猪群,异常 猪群用药参见《群体用药》			,		/4 412 1.4	,		

## VII. Clinical Practice - Drug Application and Process Follow-Up

#### **Record Sheet of Whole Herd Dosing in the Farm**

No.	Dosing start and end dates	house	Type of pig	day of age	head	Symptoms or purpose	Dosing program (with drug name, content)	dosage	usage	drug refillers
1										
2										
3										
4										
5										

**Farm Vaccine Immunization Record Sheet** 

**5** 免疫保健记录 表模板.xlsx

item	item Pig Information				Vaccine Information I					Immunization information						
No.	Pig type		Age at immunization or expected date of birth		norm	Scienc manufact urer (of a product)	batch	Wheth er or not it has expire d	nrogra	exempti	(uisease)	immu nizatio	-	Immuniz ation Needle Specifica tions	immun e	note
1																
2																
3																
4																
5																
6																

## VII. Clinical practice - management of near-expired and expired drugs

item	content	timing	Responsible person	superintendent
Communication of drup requirements	<ol> <li>At present, the field lines are operating stably and there is a stable demand for piglets, therefore, the warehouse is requested to sort out the information on the expiry date of piglets on a monthly basis and send it to the Production Technology Department for internal matching;</li> <li>With regard to expired piglets: piglets within three months of their shelf-life may be docked and used in sub- farms; if they are older than three months and cannot be proved to be fully effective, they may not be used.</li> </ol>	By the 5th of each month		
Procurement management	<ol> <li>At the time of procurement declaration, it is necessary to provide the utilization plan, stock and requisition quantity of the <u>declared veterinary vaccines;</u></li> <li>Purchase inventory: 2-3 months for veterinary drugs, 1-2 months for vaccines</li> </ol>	each time you make a purchase	Warehouse, finance or other applicant, or director of stocking department	Purchasing and Sales Department/Producti on Technology Department
Immunization and healthcare feedback	Feedback of the electronic version of the record sheet according to the immunization health record template ("Health Immunization Record Sheet-20230607") twice a month, by the 15th of each month and the 1st of the following month	half-moon	Warehouse, finance or other applicant, or director of stocking department	Purchasing and Sales Department/Producti on Technology Department
Monthly Inventory Report	Report to the Purchasing and Marketing Department by the 5th of each month the stock level and expiration date of <u>various veterinary vaccines</u> for that month.	5th of each month (postponed in case of legal holidays, etc.)	Warehouse, finance or other applicant, or director of stocking department	Purchasing and Sales Department/Producti on Technology Department
near-expired warning	Summarize information on veterinary vaccines that are 3-4 months from shelf life in the monthly field line and sales Department/Production Technology Department	2nd of each month (postponed in case of legal holidays, etc.)	Warehouse, finance or other responsible person, or director of stocking department	Purchasing and Sales Department/Producti on Technology Department
Penalties for non-compliance	<ol> <li>Because of the change of production plan, internal allocation should be made in a timely manner; information on veterinary drugs and vaccines that cannot be internally allocated should be reported to the Department of Production and Technology (clinical substitution of veterinary drugs can be made on the basis of clinical substitution of drugs);</li> <li>Losses of veterinary vaccines due to various reasons (except for losses due to force majeure, e.g. floods, lightning, landslides, etc.). The field line needs to bear the penalty of 10% of the purchase price, and the corresponding penalty ratio is field manager: production field manager: directly responsible person = 4:3:3;</li> <li>If the field line warehouse, finance or other responsible person fails to summarize the requirements for early warning management of veterinary vaccines, and if this results in a loss, the penalty shall be 200 yuan/time;</li> <li>Immunization health records must be standardized every Monday with feedback based on actual utilization.</li> </ol>	Early warning time or loss of veterinary vaccines		Purchasing and Sales Department/Producti on Technology Department

## VII. Clinical Practice - Laboratory Test Management

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No.	Problem	Program	Deadline
1	Uneven testing of farmers, late detection of ASF and high environmental contamination	1. adherence to the original detection warning; 2. enhanced sensitivity of clinical staff to abnormal pigs and increased frequency of testing as appropriate; 3. regular environmental staff monitoring	
2	High cost of testing	1. Streamlining ASF detection and identification; 2. Carrying out attempts to build a triple detection method for ASF; 3. Optimizing mixing ratios and testing items (e.g., PCV2 is rarely tested in large-scale companies nowadays), and only detecting blue-ear variant	
3	Optimization and cost control of pathogenic antibodies	1. Comparison of different kits; 2. Comparison of pseudorabies gE antibody kits	
4	Report on the results	1. Abnormal timely telephone communication and docking disposal; 2. ASF report according to the new reporting template; 3. Timely warning of critical laboratory data	
5	Creation of the Service Department Laboratory	Science-driven solutions <sup>®</sup> 1. Site, instrumentation, personnel, performance appraisal, etc.	
6	Creation of ZXJ Lab	1. ZXJ Laboratory selects the appropriate service department to promote the pilot, and the laboratory personnel docking	
7	Laboratory management	1. Laboratory regular daily competency assessment; 2. ledger management, cost management	
8	Harmonization of laboratory team building and performance programs	1. interface with external resources for training; 2. harmonize the laboratory's performance appraisal program	

## VII. Clinical Practice - Clinical Feeding Management 提高人类生活品质

No.	item	entry	Responsible unit and person	Frequency of inspections	inspector
1	water seepage and mold	All field line feed tower feed line leaks, mold, failures, etc.		Report by 6.20	
2	Criteria for fattening	Current price of pigs, timely slaughter, 186 days, 120 kilograms out of the pen		each batch	,
3	contract signing	<ol> <li>Formulation confirmation and pricing methods</li> <li>Product quality standards and biosafety control</li> <li>Finished product testing and unqualified deductions</li> </ol>		As soon as President Doe arranges it. Until then under the original contract	
4	quality control	Sampling and testing of each feed supplier twice a month		1-2 times per month per manufacturer per species	
5	Feed Program	Submitted on Sunday, reviewed on Monday (purchasing program is Tuesday through the following Monday) Strictly evaluate the feed reporting plan (predict weekly and monthly plans based on stocking and feed intake standards) Program deviation analysis and improvement		Docking Li Kun, Purchasing and Sales Department, weekly audit	
6	weigh	All incoming feed has a weighing system and is in good working order. If there is a problem, what is the assessment going to do and what is the work plan?		at every turn	
7	Weighing summary	On weighing records made into an electronic form, summarized monthly and reconciled with feed yards		Summarized on the 5th of each month	
8	on-the-spot confirmation	No access to pen and paper, direct confirmation on cell phone (free-range and captive farms)		without delay	
9	Feeding norms	Feeding norms, fattening pigs, sows Growing fattening pig feeding process (feeding in stages according to the amount of feed to reduce feed waste); standard feeding process for sows (high- low-high feeding program to strengthen the fat management)		Field internal propagation	
10	fatten cattle in a stock market	Sow farm fattening capacity reference and fattening record sheet		Measured on batches of weaned/bred (including pre-breeding of gilts), 8-50 days gestation Semi-monthly feedback (1st, 16th)	
11	Weekly data	Free-range, fattening farms are done as free-range, sow farms are provided weekly by statistics		Completed daily and summarized every Sunday	
12	Data collection and analysis	What data needs to be provided, what to analyze, weekly usage data analysis, material type, material quantity, weighing, timely guidance for on-site usage		every Sunday	
13	On-site follow-up of abnormal data	Follow-up feedback and reporting of abnormal data in various forms		Follow-up by event	
14	On-site utilization assessment	Stage of use, type of material, amount of material, leakage, moisture, waste, mold and mildew. Milk problems good feed turnover, dosage records, reduce feed waste There is a lot of waste, both in modern and traditional yards, and there is a lot of running, leaking, and leakage in the feed lines with no remedies; Trough, material line damage is not timely repair, resulting in waste of feed, troughs appear partition missing, the side of the leakage of the mouth does not make up for the majority of phenomena; complete free feeding, not empty troughs, the material in the trough of mold and deterioration; troughs can see the bottom of the 30%, empty troughs once a day! Excessive density, more stress; weak and stiff pigs are not handled in time resulting in waste; Feed use is not recorded, feeding standards are not enforced at all, and reporting is separated from actual enforcement.		Weekly assessments, incoming inspections	
15	Specification for the management of on-site feeding problems	<ol> <li>Teaching trough management, reserve feeding, boar feeding management points</li> <li>Diarrhea pig feeding adjustment</li> <li>Heat stress improvement and feeding problem management</li> <li>Feed containing powder, mold problem disposal specification</li> <li>Norms for feeding in farrowing houses</li> </ol>			
16	Wet mix feeding experiment	Determine the experimental program			

## 

	Recommended New Programs	Stage feed (kg/head)	total days of age range	feeding age range	Age of feeding	Days of feeding	Weight at end of stage	Stage daily feed intake (kg/day)	Stage daily weight gain (g/day)	stage F/G	-	Stage feed costs
Recom-	Creep feed	5	26-40	1-15	15	15	11	0.33	0.31	1.23		
mended	pig feed	30	41-75	16-50	50	35	30	0.86	0.54	1.59		
New	piglet feed	50	76-110	51-85	85	35	52	1.43	0.63	2.27		
Programs	medium boar	100	111-150	86-125	125	40	90	2.50	0.95	2.63		
	hogwash	135	151-197	126-172	172	47	130	2.87	0.85	3.38		
		320		11 71		172	130	1.86	0.72	2.59		
		Piglets at 6.5kg, 25 days of age			史中							
	Current Programs	Stage feed (kg/head)	total days of age range	feeding age range Science-dr	Age of feeding	Days of feeding	Weight at end of stage (kg)	Stage daily feed intake (kg/day)	Stage daily weight gain (g/day)	stage F/G	-	Stage feed costs
• • 1	feed	5	25-39	1-15	15	15	11	0.33	0.31	1.23		
original	pig feed	30	40-74	16-50	50	35	30	0.86	0.54	1.59		
program	piglet feed	36	75-100	51-76	76	26	50	1.38	0.76	1.82		
	medium boar	108	101-150	77-126	126	50	90	2.16	0.81	2.68		
	hogwash	142	151-199	127-175	175	49	130	2.90	0.82	3.55		
		321				175	130	1.83	0.71	2.60		

There are feed formulas and feeding management specifications for valuable weak and oversized hogs, among others.

## VII. Clinical Practice- Feeding Program Management 提高人类生活品质

#### Feeding program management



标准和实际情况 标准和实际情况 标准和实际情况)

### **VII. Clinical Practice - Feed Transportation Management**

- Safety and Economy





- Executive freight (yuan/ton) - Reference freight (yuan/ton)

## VII. Clinical Practice - Daily Follow-up on Exceptional

### Matters

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							6/11 6/12	6/13 6/14	6/15 6/16	6/17				Feeding	volume for t	he week (tons	i) To	al cumulativ	ve feeding cap	acity (KG)				
shore No.	0	ame Age of of	Date of total piglet	Total er	mb week		eni al in			total	Stock at the l	Mortality C	cumulat La	ast	Inven stand	lar Po	ercenta			Percenta	Cumulati ve veterinar		Actual Standa	liscrepanc Quantit
	add	lopt reari er ng	Foster- care farm	introdu		piglet weight	date of birth	Number of batches	1 month after entering the pig	2 months after entering the pig	after	April after pig	May after pig entry	6 months after entry of pigs	July after the entry of pigs	1 month after entering the pig	2 months after entering the pig	3 months after pig entry	April after		6 months after entry of pigs	July after the entry of pigs	Batch survival rat	y y of materia l remain ing at the end of June (tons)
				4/20	44	12.88	2022/3/7		15	32	37	52	31	16	35	0.45%	0.96%	1.12%	1.59%	0.96%	0.50%	1.11%	93.49%	
				5/30	59	20.13	2022/4/1		7	9	2	3	5	5		0.88%	1.13%	0.26%	0.38%	0.64%	0.65%		96.13%	_
				7/12 8/16	30	8.24 13.89	2022/6/12		6	9	13 21	15	<b>- 8</b> 14	15		0.45%	0.68%	0.99%	1.15% 0.83%	0.62%	1.17% 0.15%		95.04% 96.00%	
				8/25	45 37	10.35	2022/7/2 2022/7/19		14 13	15		24	14	4	277	1.00%	0.72%	0.55%	1.89%	1.12%	0.13%		90.00%	
				9/24	56	18.71	2022/7/30		9	8	33		15			0.82%	0.74%	3.06%	1.44%	1.46%	0.3270		92.69%	
				10/3	50	15.77	2022/8/14		16	12	24	-18	- 14	Ë		1.19%	0.90%	1.82%	1.39%	1.09%	-		93.78%	
				10/30	59	19.93	2022/9/1		19	17	14	24	10	1/	11	1.59%	1.44%	1.21%	2.09%	0.89%			92.98%	
				11/9	44	12.83	2022/9/26		11	4	13	3	3			0.85%	0.31%	1.01%	0.24%	0.24%			97.38%	_
				11/17	36	9.98	2022/10/12		24	S12/6	nse	-driv	ien :	solu	tions	2.09%	1.07%	0.81%	1.00%	0.00%			95.13%	
				11/19	34	9.25	2022/10/16		4	2	2	3	1	6		0.71%	0.36%	0.36%	0.54%	0.18%	1.09%		96.79%	
				11/19	33	8.81	2022/10/17		6	5	2	4	4	2		0.92%	0.78%	0.31%	0.63%	0.63%	0.32%		96.46%	
				12/13	32	8.68	2022/11/11		16	11	10	2	2		_	1.93%	1.35%	1.25%	0.25%	0.25%			95.06%	
				12/14	46	13.47	2022/10/29		18	8	4	5	7			1.50%	0.68%	0.34%	0.43%	0.60%			96.50%	
				1/9	44	12.7	2022/11/26		23	22	10	11				0.92%	0.89%	0.41%	0.45%				97.36%	
				2/3	41	11.52	2022/12/24		16	9	3	1				1.23%	0.70%	0.23%	0.08%				97.78%	
				2/27	24	6.88	2023/2/3		17	50	6					0.71%	2.10%	0.26%					96.95%	_
				3/4	49	15.15	2023/1/14		23	18	4					1.70%	1.36%	0.31%					96.67%	

田庄江中口 从北田田市 六小田,田府应 高临界温度 低临界温度 温度适中区 18 16 LCT TNZ UCT 14 12 Mcal intake 10 - Feed/gain 8 ADG, lbs 6 4 2 science-driven solut 0 冷应激 平均日增重(磅) 热应激 **Cold Stress Heat Stress** 

cold

## Notice on Keeping warm and defending cold, Immunization and Diarrhea Disposal in Pig Farms During Winter and Spring

#### Purpose

Winter and spring are the high incidence seasons of epidemics, which also bring greater challenges to biosecurity control and prevention and control of African swine fever (ASF). Therefore, it is more necessary to consolidate the prevention and control of ASF while strengthening the prevention and control measures of winter and spring cold and diarrhea and other diseases of pigs, and to do a good job of basic immunization work.



## **VII.** Clinical Practice - Prevention and Control of Major

#### 提高人类生活品质

### Diseases

事项	免疫时机	使用疫苗	备注
后备猪	入群前两次免疫	腹泻二联活疫苗	避免漏免(可使用定制化产品)
母猪跟胎	产前4周	腹泻二联活疫苗	
母猪跟胎	产前2周	腹泻二联 <u>灭活苗</u>	可沟通添加了轮状病毒
普免	<mark>9月(北方8月)</mark>	腹泻二联活疫苗	暂无
普免	10月(北方9月)	腹泻二联活疫苗或 <u>灭活苗</u>	可沟通添加了轮状病毒
紧急免疫	大面积腹泻疫情		间隔7-10天,妊娠舍全群免疫已正 常产前免疫的临产母猪不需加强

#### **Bacterial diarrhea prevention and control** 临床腹泻防控 program for piglets 方案-2023年9月

I. Pathogen of piglet bacterial diarrhea

Piglet bacterial diarrhea is a kind of infectious disease driven solutions ® caused by bacteria, mainly has the following types:

- 1. yellow diarrhea in piglets (early-onset Escherichia coli);
- 2. white diarrhea in piglets (late-onset E. coli);
- 3. Red diarrhea in piglets (Clostridium difficile type C);
- 4. swine dysentery (Treponema hyodysenteriae);
- 5, ileitis (Lawsonia Intracellularis).

仔猪细菌性腹 泻防控方案202

2-20230720-生产健康管理系

## VII. Clinical Practice - Prevention and Control of Major 提高人类生活品质 Diseases



## **PART** 04

## **Pigs sold well at a good price** - settlement program, pre-

## 



decrease

### II. Trend of hog prices - a surplus of hogs has kept prices low

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## III. It's too hard to make a profit, and the future is gloomy $\frac{1}{26} = 1.5 \pm 1.5$

Self-raising model needs to have healthy pigs and control costs; outsourced model needs to control purchasing red lines (price, health, etc.)



- **1. Selection of breeds (according to local conditions)**
- 2. Learn more about the market, cooperating with standardized big suppliers, and make friends with local peers, pig brokers, feed dealers and so on.
  3. Cautiously hold pigs or sell (stabilize the inventory, measure but do not bet on the market)
- 4. Preparation for a few days before selling pigs (control of selling process)
- 5. Pig selling price (pre-sale financial calculations are very important, not just counting the immediate cost, but calculating the operating costs, the market is difficult to predict, sometimes the more you raise, the more you lose, the current market is flexible and changeable)
- 6. Beware of disease (reduce mortality and increase marketing rate)

## V. Clinical practice - timely marketing - not the bigger the 提高人类生活品质 better

Based on the market and its own reasons, the Purchasing and Sales Department and the Finance Department need to simulate and project in a timely manner



## V. Clinical practice - timely marketing - not the bigger the $\mathbb{B} \equiv \mathbb{A} \cong \mathbb{B}$

better	_								7-110 kg bu	ıdget target		
piglet weight	7	7	7	7	7	]	Date of entry		Date of Pig Out		Age of rearing	155
	1	,	/	,	,	_	Batch survival rate (%)	95.11%	Batch authenticity rate (%)	94%	F/G	2.664
Output weight	110	115	120	125	130		Mean weight of fry (kg)	7.00	Average listed weight (kg)	110	Daily weight gain (g)	665
(kg)							Amount of piglets received	1360000	Amount of feed received	3361261	Amount of veterinary drugs received	129350
F/G	2.664	2.704	2.74	2.775	2.808		Other expenses	551352.67	full-cost	15.19	Cost of weight gain	12.18
Total cost	15.19	15.14	15.10	15.07	15.04				Amount of pig	lets purchased		
Cost of weight	10 10	10.07	10.05	10.40	10 50		form	price of item	headcount	weights	uniform weight	settlement amount
gain	12.18	12.27	12.35	12.42	12.50		Commercial piglets	400	3400	23800	7.00	1360000
8							total		3400	23800		1360000

#### **Recycling of meat pigs**

No.	Recycling grade	headcount	Net weight (kg)	uniform weight					
1		3234	355711.4	110					
2									
total		3234	355711.4						
Summery of food receipts									

When to settle the finance to provide reference 2. Do not gamble on the market, do not hold pigs for a higher price, solut timely marketing, to ensure that the sales process is smoothly advanced; sales bidding model to explore?

3. Timely sale of large weight pigs, may be the more you raise, the more you lose, pay attention to the death of pigs over 160 days of age and feeding and other management

1. Adhere to the pre-settlement management: do a good job of

financial settlement of sales measurement; early sale of profitability?

Focus:



tion R		Summary of	receipts		
Feed Name	Average headcount	price of item	dosage	sum of money	
feed	4	8.46	13600	115083.2	
foreboding	10	5.49	34000	186796	
recycled material	20	4.80	68000	326400	
piglet feed	60	3.71	204000	756840	
medium boar	175	3.500	564611.9696	1976142	
total	884212	ļ'	884212	3361261	
Veterinary Vaccines Sterili	izers Planned Dosage	Other e	xpenses		
head capillary (e.g. of farmland)		head capillary (e.g. of farmland)	sum of money		
40	129349.6	170.5	551352.67		

## V. Clinical Practice-When to sell?

## Is it possible to secondarily fatten? Fatten pig by yourself or someone else

#### Reference table of F/G for standard market pig (120kg) at

	late fatten	ing stage								
Weight (kg)	Stage F/G	Stage Cumulative	Stage feeding	表6-16不同销售价格下肥猪120kg延期出栏边际效益表(单位:元/头)						
		F/G	days	价 猪 12元/千克 13元/千克 14元/千克 15元/千克 16元/千克 17元/千克 18元/千克 19元/千克 20元/千克						
120	2.90	0								
120	3.80	0		130kg 45.58 -35.83 -26.09 -16.35 -6.60 3.14 12.88 22.63 32.37						
130	4.25	4.25	13	140kg -104.27 -84.82 -65.38 -45.93 -26.49 -7.05 12.40 31.84 51.29						
140	4.60	4.42	14	Scient 2048 dr 170 07 sol 40 195 n 1 19.83 - 82.71 - 53.58 - 24.46 4.66 33.78 62.90						
150	4.79	4.54	14	160kg -244.31 -205.58 -166.85 -128.12 -89.40 -50.67 -11.94 26.79 65.51						
160	5.00	4.66	16							

- Assumptions: feed consumption, labor, utilities and finance costs are accounted for according to the company 's current situation, feed cost is 3.6 yuan/kg, you can calculate the marginal benefit of fattening pigs at different market weights and different gross pig prices.
- It should be based on the market price and its own cost control ability to decide when to sell fattening pigs is more cost-effective.

## V. Clinical Practice - Pig Sales Management

**<u>1. Break down the standardized pig marketing processes and train personnel , especially on biosecurity,</u> <u>according to the following items</u>** 

2. Investigation of pig deaths in the sales process and the corresponding disposal program: the treatment of stressed pigs should be advanced, including the flushing of water in the pig pen before loading the pigs, the pigs should not be rushed, and the use of stun guns should be minimized to control the problem before getting on the car to avoid the occurrence of this situation, the salesman should be on the scene to direct the whole process of loading the pigs

			子子子	清单 🔨		
售猪前2-3 天	根据出栏计 划,联系 户(确定、体 重,提供相 应手续)	联系拉猪车 辆 (网上备 案、外省调 运 需 承 诺 书) Scien	网上申报 (头数、线 路、目的 地) ce-drive	来 転 送 检 (10%)、 拿 检疫耳标 つ Solutio	- 级客户 预付款) ns <sup>®</sup>	部门沟通
售猪前1天	车辆在指定 地 点 洗 、 消、烘、检	车辆在向化 消毒点开 <mark>消</mark> 毒证	车辆提前进 入指定装猪 点消毒	猪只空料一 顿	出猪台消毒 及检修	人员安排
售猪当天	空车过磅并 停靠升降台 装猪	上 猪 打 耳 标、喷淋降 温、应激处 理	满 载 过 磅 (随车非洲猪 瘟血检报告、检 疫票、运输车辆 备案手续)	(二级客户 打全款)	开 检 疫 票 (与耳标一 致)	人员协调

https://mp.weixin.qq.com/s/rQ1ezYOWLonlfyw2EJX35g

## V. Clinical Practice-Farmer Settlement-Risk Sharing, Profit Sharing

#### 提高人类生活品质

#### 关于下发《猪苗委托养殖结算方案》第六版的通知

养猪事业部、各下属子公司:

为践行"成本优先、养好卖好"的合作理念,建立公司与养户之间长期 稳定互信的合作关系,引导养户专心专注于养猪生产管理,通过提高生产成 绩,获取合理报酬。特制定《猪苗委托养殖结算方案》第六版文件。 现将本结算方案下发给你们,请遵照执行。 Science-driven solutions<sup>®</sup>

特此通知

附件:《猪苗委托养殖结算方案》

Make more use of the tools of the industry:

- > Hog futures
- Tools that provide price discovery and risk management for hog producers, processors, traders, consumers, etc.
- > Hog insurance:
- Knowing biosecurity prevention and control norms during insurance reporting process, making financial measurements, and follow-up by special person Science-driven solutions<sup>®</sup>
- Improved defense against risks and accidents
- Reduce losses and enhance the ability of farmers to engage in reproduction.



## I. Value creation and win-win cooperation

#### 提高人类生活品质

#### 顾全大局,是一个成年人最顶级的成熟

民间有句谚语叫做:"锅里有,碗里才有"。如果群体利益得不到实现,那么个人利益也不可能得到满足。

适当的牺牲,可能换取来的是百倍,甚至千倍的收获,只有那些愚蠢的人,才会为了 一己私利而破坏大局,那样的人在损害到别人的情况下,也难免会自食恶果。

一个人最好的教养,无疑就是懂得顾全大局,不求你做一个舍己为人,大公无私的人,但起码在考虑自己的情况下,也考虑一下别人,然后综合起来权衡利弊,择出最优方法。

顾全大局,能承担,能行动,能化解,能扭转,能改变,能想自己,更能考虑别人,这不仅是一种境界,一种大智慧,更是一个成年人最顶级的成熟Science-driven solution

Companies and Service Providers Companies and farmers Company and employees Corporate and Service Department Service Department and Administrators Administrators, Farmers, etc.

"With the skin gone, where can the hair attach itself?(皮之不存, 毛将焉附?)" From Zuo Zhuan (左传), by Zuo Qiuming (左丘明) in the late Spring and Autumn period.焉: where; 附: to attach. The meaning of this sentence is simple and easy to understand: with the skin gone, where will the hair attach itself?

It must not be at the expense of the public interest, adopt the mentality of eating a big pot of rice. Do not shirk each other's responsibilities, and occupy a latrine without taking a shit.

rs Every individual needs to be activated, bottom out, while creating a historical wheel system, except for the leaders, keeping the mundane majority on track can work miracles.

### II. Value Management -- Value creation and Sharing 提高人类生活品质

Establishment by the company of a standardized management system, in particular a major disease management system and a production finance system
 Start from the red line of ASF prevention and control, and the bottom line of cost control, do not directly assess and manage indicators, but directly do operation (non-profit) assessment and management, so you can understand loss, make steady profit, return to the essence of farming, and make more money than others.

3. Emphasize the control of grass-roots administrators, activate the first-line employee, manage in a clear manner and implement the bottom-out system.

4. ASF has become an "excuse" for many people not to go to pig farms, it's a common problem among current managers being promoted too fast.

5. As the proportion of basic salary has been reduced, we need strict control of job pay and performance pay, make it floating within a range to activate the individual; not to ignore the "honest" value-creating people, but also not to ignore the good "PPT" maker.

## **PART 06**

## Summary -Raising money-making hogs, understanding loss and making steady profit

1. Do what we can do, we can't decide on the market can not decide, but can decide on the cost leadership.

2. Select pigs that has good genes, so we can raise it well (necessary, not sufficient condition);

3. Pigs are well raised, so they can be sold well, then we have a chance of selling them at a good price (necessary, not sufficient condition);

4. The prevention and control of major diseases, such as ASF, is an insurmountable mountain, and the control of feed and other costs is the bottom line of sound operation. *Science-driven solutions*®

#### II. Summary-Raising money-making hogs, understanding loss and making steady profit 提高人类生活品质

1. It is very difficult to make money with normal quality pigs, not to mention all kinds of worthless pigs, especially weak and poor piglets and old fattening pigs, which have a huge impact on performance and cost, and often the choice is greater than the effort; 2. Finance and operation are often seperated, because difference in profession makes one feel worlds apart, financial staff should not think of betting on the market, they need to ensure that the cash flow is running soundly, and provide a key reference for production decision-making;

3. To know the operation, refine the cost anomalies, clinical tracking and implementation, so you can understand the loss is caused by cost or the market;
4. Choose a flexible production model, such as the asset-light model of continuous innovation, insist on cost leadership, lose less than others and earn more steadily than others

# Hope is right ahead!

Science-driven solutions<sup>®</sup>