



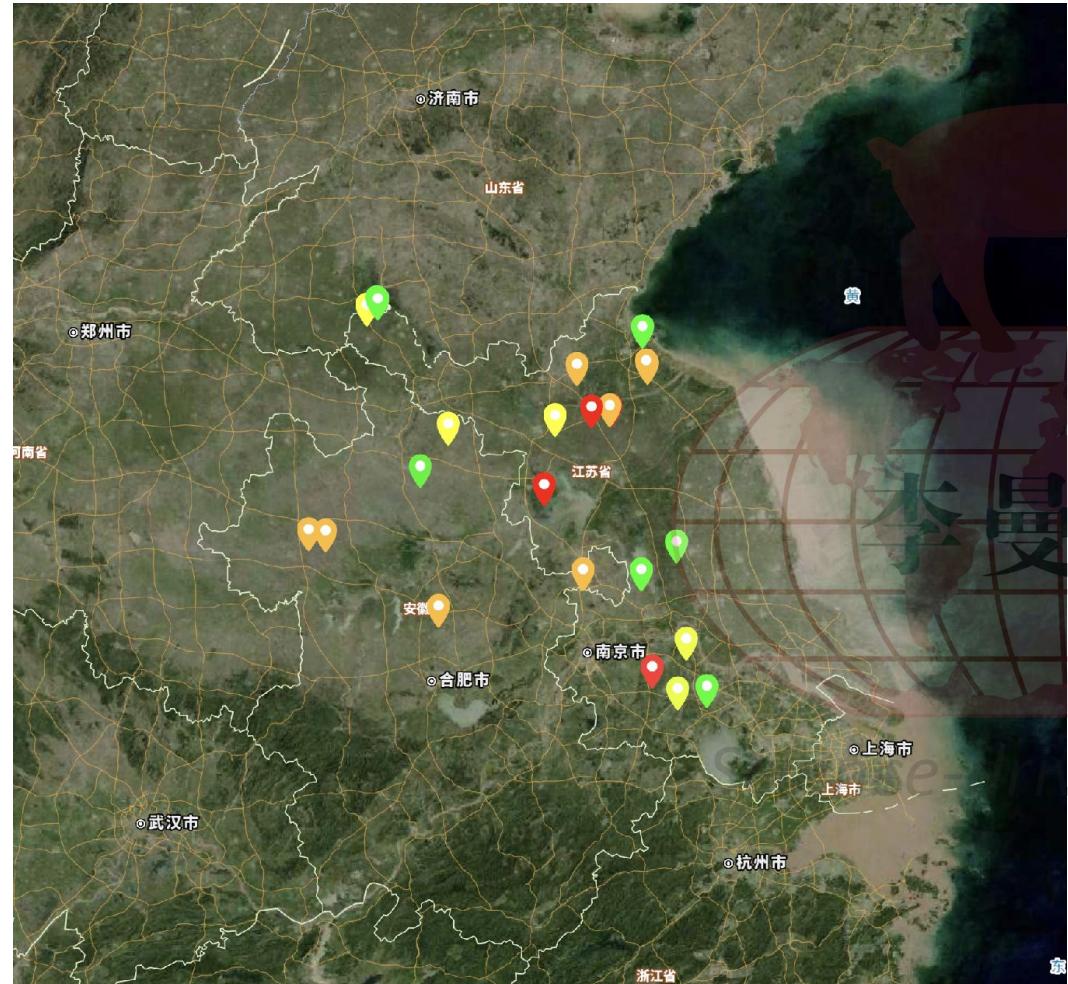
# 猪场生物安全的减法

## Subtraction of biosecurity in pig farms

20251018

江苏立华食品集团股份有限公司：黄建强（养猪产业兽医）

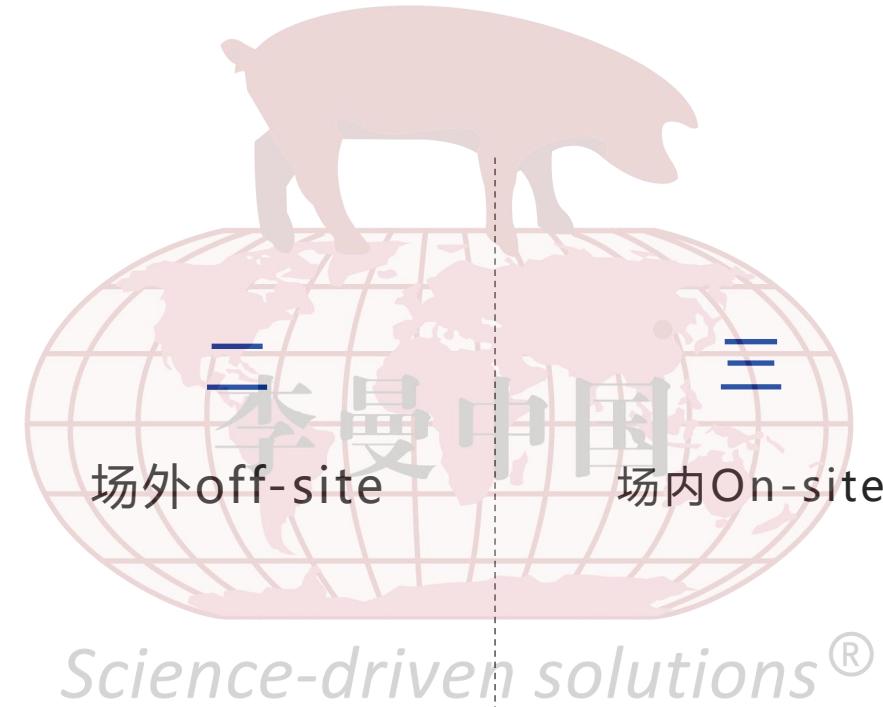




- 江苏安徽；平原；人口密集区；  
• Jiangsu; Anhui; plain; densely populated areas;
- 平养楼房，一点两点三点式；  
• Flat maintenance building, one-site, two and three sites;
- 26个在养母猪场；约10万基母  
• 26 sow farms; about 100,000 sows
- 500-10000的单场规模  
• 500-10,000 single farm size
- 8个蓝耳双阴母猪场；  
• 8 PRRS double negative sow farms;
- 商品猪以自育肥为主，少量放养。  
• Commercial pigs are mainly raised by themselves, with a small number of free-range pigs.
- 4000-40000的单体规模  
• The size of a single body of 4000-40000
- 数据更新为25年9月。  
• The data was updated in September 2005.

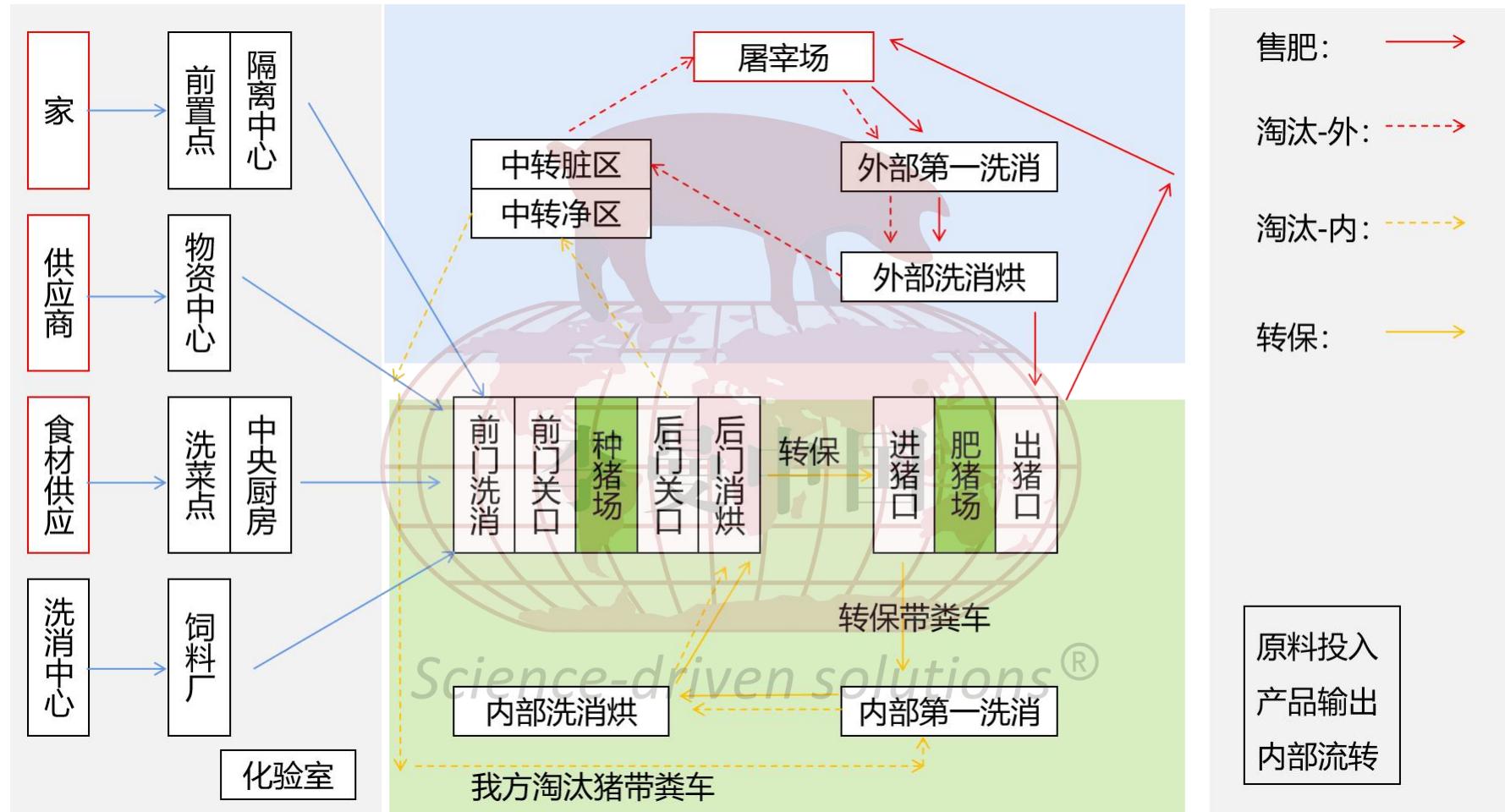
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原生物安全体系总图 Original biosafety system general diagram

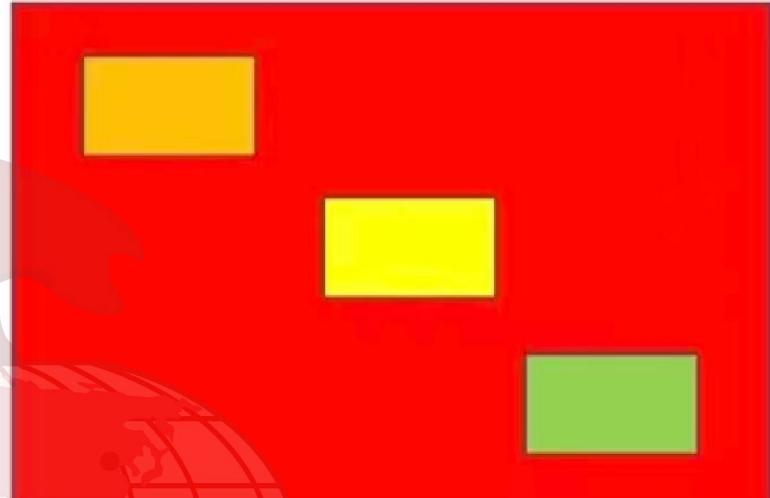


先天选址的难处：逐级减毒，是否还有必要？如何面对二次污染的压力？

The difficulty of congenital site selection: is it necessary to reduce the virus step by step? How to deal with the pressure of secondary pollution?



我们认为的“逐级减毒”

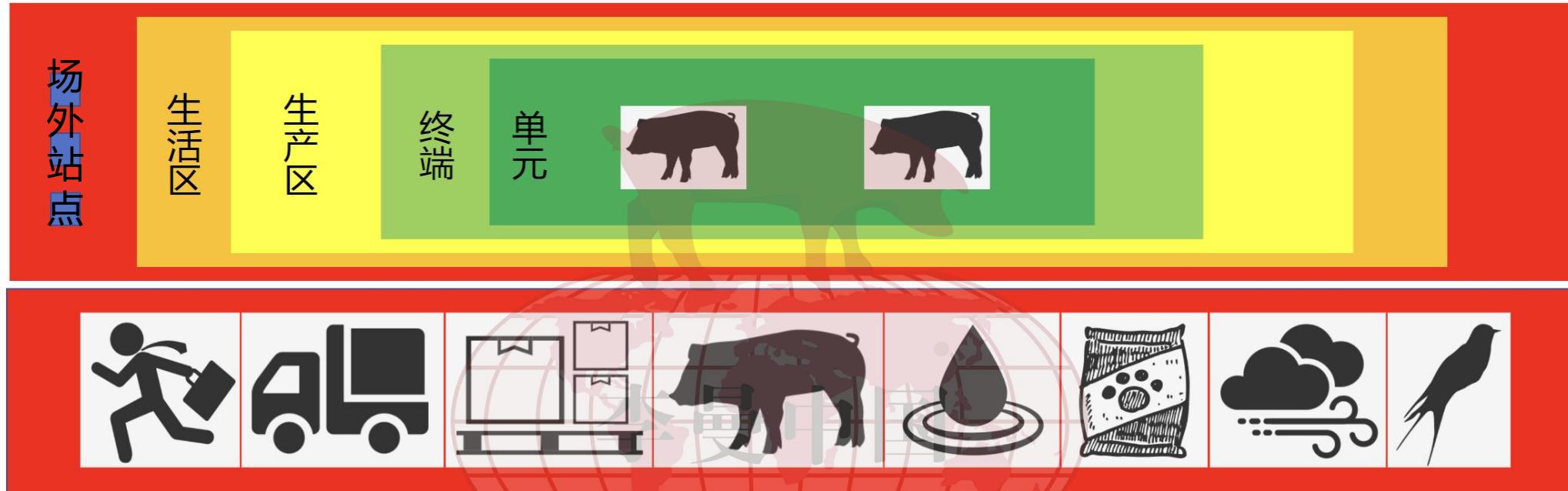


实际上平原及人口密集区的“逐级减毒”



每次转运/接驳都是在危险中穿行，都有被二次污染的可能，





- 离猪太远；顾及太多；成本较高
- Too far from the pig; too much to consider; high cost
- 结果不好：每次复盘加一次码，结果还是不好
- The result was not good: every time I reviewed and added a code, the result was still not good
- 10月-来年3月：短期内，同时发病。不同区域，不同洗消体系，不同人员团队。
- October to next year March: In the short term, simultaneous outbreaks occur in different regions, with different decontamination systems and different teams.
- 调整：去伪存真，聚焦重点，关键点上发力
- Adjustment: to eliminate the false and focus on the key points

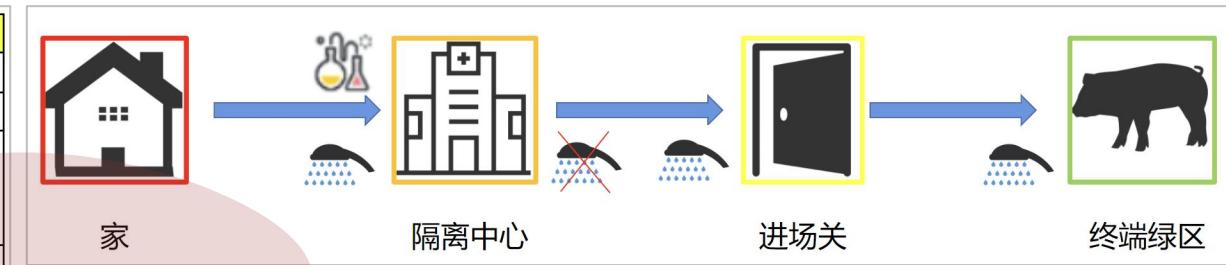


## 1 人员返场1. Personnel return to the field

常规猪场		前置点	隔离中心	进场	进终端见猪
常规人员	事件	采样等结果	洗澡进入	洗澡进场	正常上班
	时间	第1天(当天)	第1天	第1天	第2天
巡检人员	事件	-	-	直接到场门口，留样不等结果，洗澡进场	按要求洗澡，当天可见猪
	时间	-	-	第1天	第1天
普通蓝耳阴性场		前置点	隔离中心	进场	进终端见猪
常规人员	事件	采样等结果	洗澡进入	洗澡进场	正常上班
	时间	第1天(当天)	第1天	第1天	第2天
巡检人员	事件	无需	无需	留样不等结果，直接洗澡进	次日可见猪
	时间	-	-	第1天	第2天
高级别蓝耳阴性场		前置点	隔离中心	进场	进终端见猪
所有人员	事件	采样等结果	洗澡进入	洗澡进场，在场内隔离宿舍过1夜+生活区宿舍1夜	正常上班
	时间	第1天	第1天	第1+2天	第3天

## 备注

- 1) 差异解释：巡检人员，原则性不碰猪；常规人员，需要碰猪；蓝耳病毒需要 24 小时衰减
- 2) 高级别蓝耳阴性场：指“供种”或“供精”的猪场，如：云台、礼嘉、首羨、联盟、上兴、欢口核心；其他为普通蓝耳阴性场。
- 3) 手机：私人手机不允许上线—线上配工作手机
- 4) 巡检人员不去隔离中心但是门口留样事后检测阳性：
  - a. 首次警告，全集团通报
  - b. 二次罚款 200+未来 1 个月取消快速进场资格。
- 5) 部分公司特殊情况，经报备和同意后，可以零星调整。如，隔离中心离猪场太远，常规人员，也可以不去隔离中心，直接到场门口采样等结果。



现行主流方案：Current mainstream solutions:

- 人分类；场分级 Classification of persons; field classification
- 1次采样2次洗澡，当天可进生活区 One sampling, two showers, and you can go into the living area on the same day
- 巡检人员：直接到场门口，不需要等检测结果，当日可进猪舍。 Inspector: Go directly to the door, do not need to wait for the test result, enter the pig barn on the same day.
- 轻装简行；检查指甲；澡后金属探测器检查 Light and simple; check nails; metal detector after shower

部分分公司试点：Pilot in some branches:

- 采样不等结果，直接洗澡进入下一步流程 Sampling results are not equal, take a shower and move on to the next step
- 较偏远猪场，直接到场门口，不再去隔离中心 Compared with remote pig farms, they go directly to the gate instead of going to the isolation center

## 2 物资进场2. Material access

- 原: 最小包装, 浸泡/烘干/静置14天进场
- Original: Minimum packaging, soaked/dried/stored for 14 days before entering the site
- 原始完整包装物资Original complete packaging materials
  - 进场外大库&进场, 仅做表面消毒; Outside the warehouse and inside the warehouse, only surface disinfection is done;
  - 进终端拆到最小包装浸泡Take the terminal apart and soak it in the smallest package
- 普通散装杂品 (地采) Common bulk miscellaneous (field collection)
  - 维持: 泡、烘、静置 (+喷) Maintenance: soak, dry, let stand (+ spray)
  - 部分试点: 阳光静置棚 Partial pilot: Sunlight storage shed
- 疫苗: 进场冰消毒水10分钟; 进终端常温消毒水
- Vaccine: Enter the ice disinfectant for 10 minutes; enter the terminal normal temperature disinfectant
- 浸泡或烘干处理: 不需要静置 (减少资金占用)
- Soak or dry treatment: no need to sit still (reduce capital occupancy)
- 个人快递: 内勤统一买 (审核) 、安全、易消毒
- Personal express: internal staff buy (review), safe, easy to disinfect
- 设备改进: 易执行
- Equipment improvements: easy to implement





6月，高温可达67度，50度以上能维持7小时。但受天气影响



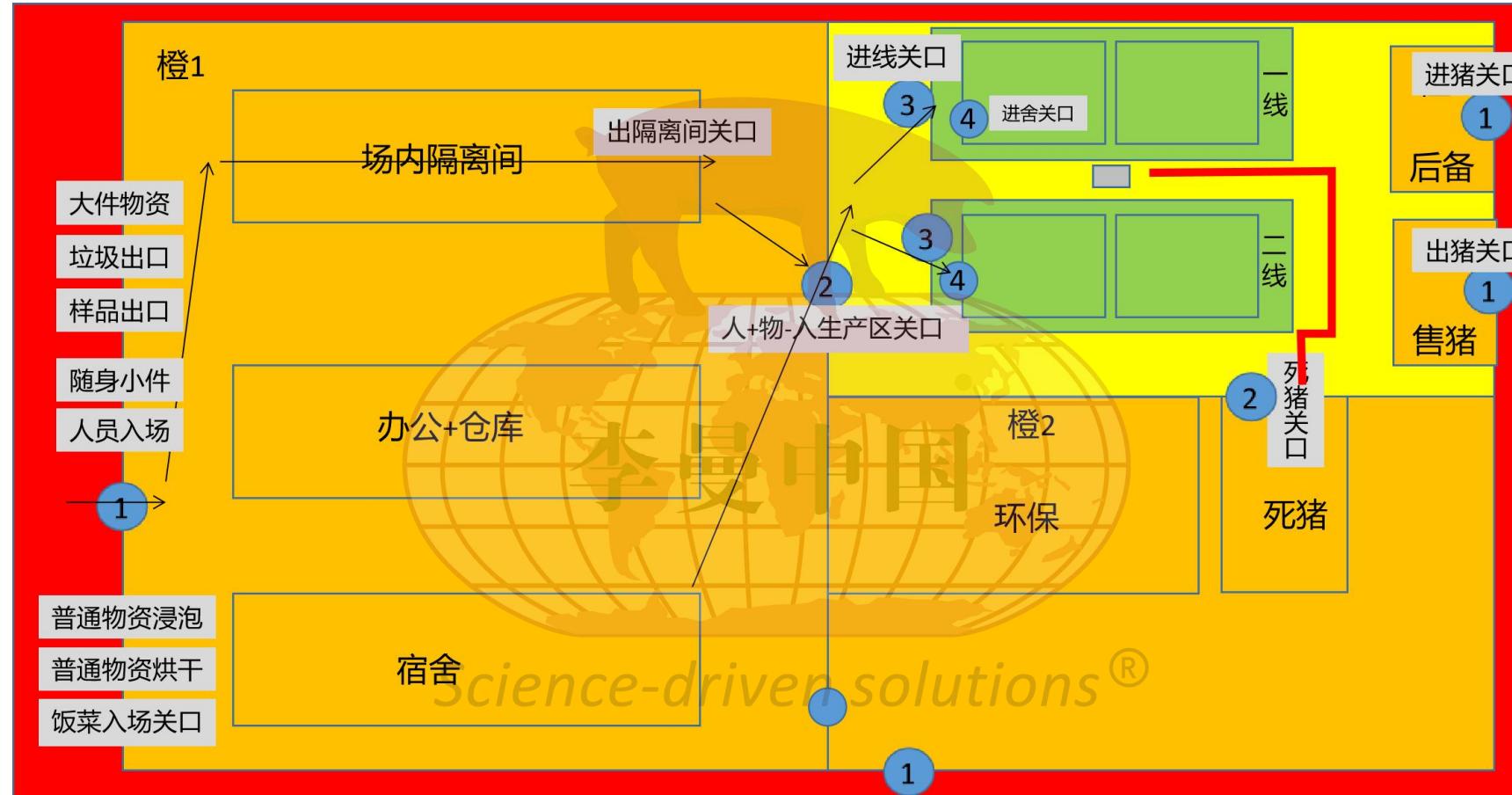
- 主要纠结点: 烘不烘 Main dilemma: Will it bake
- 成品料车: Finished material car:
  - 装料前的烘干: 顺季1周1烘, 逆季1天1烘 Drying before loading: 1 drying per week in the same season, 1 drying per day in the opposite season
  - 场边: 原则上不烘; 小试, 料臂热烘。Outside the field: in principle, no baking; small test, material arm hot baking.
- 原料车: 无特殊处理, 整车雾化 Raw material car: no special treatment, the whole vehicle is atomized
- 送宰车: 检查→外部洗消中心 (烘) →场边消毒/或烘干→装猪→屠宰场 Deliver the vehicle: Check → external washing and disinfection center (dry) → field side disinfection/or dry → load pigs → slaughterhouse
- 引种&转保车: 备用→内部洗消中心 (不烘) →种猪场边 (消毒+烘干) →装猪→商品场边消毒→卸猪→返回内部洗消中心备用。Introduction and transfer of insured vehicles: reserve → internal washing and disinfection center (no drying) → beside the breeding pig farm (disinfection + drying) → loading pigs → disinfection beside the commercial farm → unloading pigs → return to the internal washing and disinfection center for reserve.

## 4 其他 4 Other

- 空滤: 有条件, 尽量上。差异极显著。Air filter: If possible, use it. The difference is extremely significant.
- 食材: the original material of food :
  - 当前: 预处理→场外厨房烹饪→熟食送到猪场→烘干进场 Current: Preprocessing → Off-site kitchen cooking → Ready food delivered to the pig farm → Dried and brought in
  - 此处有很大简化空间 (场边厨房, 隔墙打菜), 但是暂未达成一致意见, 暂未调整 There is a lot of space for simplification here (kitchen at the edge of the field, dishes on the partition wall), but no agreement has been reached and no adjustment has been made
- 水果: 二氧化氯浸泡后直接进场
- Fruit: After chlorine dioxide immersion, it is directly put into the field
- 大件物资: 喷雾、覆膜静置
- Large quantities of materials: spray, film and static
- 生物媒介: 喜鹊、麻雀; 猪舍密闭管控终端更重要
- Biological media: magpies, sparrows; pig barn closed control terminal more important
- 手机进场: 进场烘干消毒 (是否改擦拭, 尚未达成共识)
- Mobile phone enters the field: enter the field for drying and disinfection (whether to change wiping, there is no consensus yet)
- 卖肥猪: 绝对有风险, 但绝对没想象中那么大
- Selling fat pigs: Absolutely risky, but definitely not as big a risk as you think
- 水: 雨季防被淹; 饮水反渗透 (部分深紫外)
- Water: Rainy season protection against flooding; drinking water reverse osmosis (partially deep UV)
- 料: 高温制粒-密闭接料-密闭转运-及时关闭料塔
- Materials: high temperature granulation-closed receiving-closed transportation-timely closure of the material tower
- 气: 异常天气; 粉尘
- Air: abnormal weather; dust







日常上班洗一次澡：生活区进生产区关口取消 2；聚焦进线（终端） 3。  
Take a bath once a day at work: the entrance to the production area is cancelled (2); focus on the entry line (terminal) (3).



终端关口 Terminal gateway

诚信、合作、创新、规范



Science-driven solution®



- 入职第一课- 进出单元：一脱二跨三洗手，穿衣换鞋踩盆走。
- First lesson on entering the job-entry unit: take off, cross two, wash hands three, put on clothes and change shoes to walk to the basin.
  - 垫板；洗手；防尘服Pad; hand washing; dust cover

Science-driven solutions®

- 手机：线上工作手机；个人手机不上线
- Mobile: Mobile for online work; personal mobile offline
- 吃饭：出生产线；原则上不在线上吃饭
- Eating: Out of the production line; in principle, do not eat online
- 死猪处理：原，必须场内无害化，不允许去社会无害化点；改，允许隔墙传送
- Treatment of dead pigs: The original must be harmless in the field, and it is not allowed to go to the social harmless point; the reform allows the transmission through the wall
- 餐厨垃圾：出场/环保区掩埋/环保区养鸡
- Kitchen waste: off-site/landfill in eco-zone/raise chickens in eco-zone
- 环境和道路消毒：日常无必要；异常天气或重点时节有必要。
- Environmental and road disinfection: not necessary on a daily basis; necessary in abnormal weather or key seasons.
- 商品猪免疫：减少频次；63d, 100d, 猪瘟伪狂口蹄疫，三合一，各1次；顺季部分仅1次。
- Product pig immunization: reduce frequency; 63d, 100d, swine fever pseudocowage, three-in-one, each 1 time; seasonal part only 1 time.
- 带猪消毒：仅商品猪特殊场景
- Disinfection of pigs: only for special scenarios of commercial pigs
- 送样：滴滴；快递；一体机。
- Sample delivery: Didi; Courier; all-in-one machine.
- 检测：异常猪监测为主；淘汰监测；普检（猪只/环境），个人认为意义不大，也发挥不出预警的作用；免疫前监测：测不到
- Testing: mainly monitoring of abnormal pigs; culling monitoring; general testing (pigs/environment), which I think is not very meaningful and does not serve as a warning; pre-immunization monitoring: not detectable
- 剔除：双缺疫苗毒-单元（母猪场）；野毒-阳性猪及左右2头（母猪场）；商品猪（分类）
- Exclusion: Vaccinated virus-negative unit (sow farm); wild virus-positive pigs and 2 others (sow farm); commercial pigs (classified)



# 四 李曼中國 总结 Summary

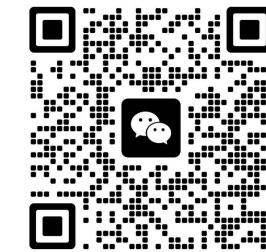
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- 生物安全体系，存在较多可提效降本的空间，部分动作，没必要、离猪远。
- In the biosecurity system, there is a lot of room for efficiency and cost reduction. Some actions are unnecessary and far away from pigs.
- 人员很有必要解放出来；物资分类处理；减少不必要的车辆烘干。
- It is necessary to liberate the personnel; classify and process the materials; reduce unnecessary vehicle drying.
- 聚焦终端：进出终端、进出单元。
- Focus on terminals: in and out of terminals, in and out of units.
- 平原地区，空滤改造很有意义。无空滤猪场要关注异常天气。
- In plain areas, air filter transformation is very meaningful. Pig farms without air filter should pay attention to abnormal weather.
- 结果导向：共性；结果好-做的对；结果不好-努力错了方向了。
- Result orientation: common; good result-doing the right thing; bad result-trying to do the wrong thing.
- 综合平衡：防疫成本；损失概率。
- Overall balance: cost of epidemic prevention; probability of loss.



黄jq  
江苏 泰州



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