

中国标准化协会标准

CAS

STANDARDS OF CHINA ASSOCIATION
FOR STANDARDIZATION

235-2014

农场动物福利要求 猪

Farm Animal Welfare Requirements: Pigs

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前 言

中国标准化协会（CAS）是组织开展国内、国际标准化活动的全国性社会团体。制定中国标准化协会标准（以下简称：中国标协标准），满足企业需要，推动企业标准化工作，这也是中国标准化协会的工作内容之一。中国境内的团体和个人，均可提出制、修订中国标协标准的建议并参与有关工作。

中国标协标准按《中国标准化协会标准管理办法》进行管理，按CAS 1.1—2001《中国标准化协会标准结构及编写规则》的规定编制。

中国标协标准草案经向社会公开征求意见，并得到参加审定会议的75%以上的专家、成员的投票赞同，方可作为中国标协标准予以发布。

使用中国标准化协会标准的单位，应按现行国家有关规定办理标准备案，并对技术内容负责。

本标准首次制定。

附录A为资料性附录。

在本标准实施过程中，如发现需要修改或补充之处，请将意见和有关资料寄给中国标准化协会，以便修订时参考。

引 言

为了保障动物源性食品的质量、安全和畜牧养殖业的良性可持续发展，填补我国农场动物福利标准的空白，特制定本标准。

本标准基于国际先进的农场动物福利理念，结合我国现有的科学技术和社会经济条件，规定了农场动物健康福利生产及加工要求。

本标准对农场动物福利要求中猪的养殖、运输、屠宰及加工全过程要求。

农场动物福利要求 猪

1 范围

本标准规定了农场动物猪的福利养殖、运输、屠宰及加工要求。

本标准适用于农场动物中猪的养殖和其运输、屠宰及加工全过程的动物福利管理。

2 规范性引用文件

下列文件对于本文件的应用是必不可少的。凡是注日期的引用文件, 仅注日期的版本适用于本文件。凡是不注日期的引用文件, 其最新版本(包括所有的修改单)适用于本文件。

- GB 2707 鲜(冻)畜肉卫生标准
- GB 2761 食品安全国家标准 食品中真菌毒素限量
- GB 2762 食品安全国家标准 食品中污染物限量
- GB 2763 食品安全国家标准 食品中农药最大残留限量
- GB 5749 生活饮用水卫生标准
- GB/T 22569 生猪人道屠宰技术规范
- NY/T 5027 无公害食品 畜禽饮用水水质

3 术语

下列术语适用于本标准。

3.1

农场动物 farm animal

为了食物生产, 毛发、皮、毛皮加工等目的, 或者其他目的而在农场环境或类似环境中培育和饲养的动物。

3.2

农场动物福利 farm animal welfare

农场动物在饲养、运输、屠宰过程中得到良好的照顾, 避免遭受不必要的惊吓、痛苦或伤害。

3.3

环境富集 environmental enrichment

对农场动物的居所进行有益的改善。即在单调的环境中, 提供必要的材料和玩具供其探究玩耍, 满足动物表达其生物学习性和心理活动, 从而促使该动物的心理和生理均达到健康状态。

3.4

异常行为 abnormal behavior

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猪只表现出的致残致伤行为(如：咬尾巴、咬腹侧、咬耳等)、刻板行为(如：母猪表现无食咀嚼等)等。

3.5

人道屠宰 humane slaughter

减少猪只应激、恐惧、肢体损伤和痛苦的宰前处置和屠宰方式。

4 饲料和饮水

4.1 饲料

4.1.1 猪场选择的饲料和饲料原料应满足国家有关法律法规及标准要求。

4.1.2 猪场应获取饲料供方配合饲料及补充料的组成成分和营养水平信息；若自行配料，应保留饲料配方及配料单；饲料原料来源应可追溯。

4.1.3 猪场不得使用变质、霉败、生虫或被污染的饲料原料和餐饮业的废弃物及同源性饲料原料。

4.1.4 猪场应根据猪只的品种特点提供符合相关标准的日粮，以满足其营养需要。猪场宜为种猪提供青绿饲料或草粉。

4.1.5 猪场应每天饲喂猪只。饲喂方式应尽量减少猪只间的争抢，不应突然变更饲料类型和饲喂量，如需变更应逐步过渡，过渡期应3天以上。

4.1.6 猪场采用料槽饲喂时，应保证足够的饲喂空间（不小于1.1倍肩宽），以供猪只同时进食。

4.1.7 猪只自由采食条件下，使用干式喂料器时，每个采食位不得多于6头猪只；使用干湿喂料器时，每个采食器不得多于14头猪只。

4.1.8 猪场采用料槽饲喂群养母猪时，应在每个采食位间设置头肩部隔离栏。

4.1.9 猪场宜采用电子饲喂系统饲养母猪。

4.1.10 猪场应保持饲喂设备的清洁。采用湿拌料时，应防止高温环境下残余饲料的腐败变质。

4.1.11 猪场应定期清扫饲料仓，防止饲料贮藏过程中的污染。猪场应采取防止外来动物污染饲料。

4.1.12 猪场不应使用以促生长为目的非治疗用抗生素，不得使用激素类促生长剂；对于加药饲料的使用应明确标识并记录。

4.1.13 猪只上市前应严格执行休药期的相关规定。

4.2 饮水

4.2.1 猪场应每天连续向所有猪只提供充足、清洁、新鲜的饮用水。猪只饮用水质应符合GB 5749和NY/T 5027标准的要求。

- 4.2.2 猪场应为每 10 头猪配备一个饮水位。
- 4.2.3 猪场使用干湿喂料系统时，应在猪舍内提供额外的饮水器，数量为每 15 头猪 1 个；使用管道湿料系统时，应在猪舍内提供额外的饮水器，数量为每 30 头猪 1 个。
- 4.2.4 猪场安装饮水器的位置与高度应方便所有猪只饮用，应能同时供水，其流量应满足每一阶段猪只的需求。鼓励使用节水型饮水设备。
- 4.2.5 猪场应保持各式饮水器洁净，供水系统应定期维护和消毒。
- 4.2.6 猪场应储备足够的饮用水，以便正常供水中断时应急使用。
- 4.2.7 冬季宜为仔猪和分娩母猪供应温水。
- 4.2.8 在饮水中需添加药物或抗应激剂时，应使用专用设备，并做好添加记录。

5 养殖环境

5.1 建筑物

- 5.1.1 猪场建设应满足国家相关法律法规和标准的要求。
- 5.1.2 猪场建设的规划设计，应考虑总面积及其猪只数量、年龄、体重、采食空间、饮水空间、垫料面积等与动物福利相关的要求。
- 5.1.3 猪舍及舍内设施设备应使用无毒无害的材料。
- 5.1.4 猪舍应保温隔热，地面和墙壁应易于清洗、消毒。与猪只接触面，应避免尖锐的边缘和突出，以防止对猪只的伤害。
- 5.1.5 猪场内的电器设备、电线、电缆应符合相关规范，且有防护措施防止猪只接近和啃咬类动物的啃咬。
- 5.1.6 猪场应建立废弃物无害化处理设施，并保证其正常运转。
- 5.1.7 猪场应设有弱、残、伤、病猪只特别护理区，并能与其它猪舍隔开。

5.2 饲养密度

- 5.2.1 生长肥育猪猪舍最小空间需要量见表 1:

表1

体重(kg)	最小总面积 (m ² /头)	最小躺卧区面积 (m ² /头)
<20	0.35	0.2
20~50	0.6	0.4
50~80	0.9	0.6
80~110	1.2	0.8

- 5.2.2 母猪猪舍最小空间需要量见表 2:

表2

	最小总面积 (m ² /头)	最小躺卧区面积 (m ² /头)
经产母猪	3.0	1.5
初产母猪	2.5	1.2

5.2.3 公猪猪舍围栏应允许其能自由转身，最小总面积不小于 7.5 m²/头。

5.2.4 交配围栏面积不宜小于 12 m²，以保证求偶和交配有足够空间。

5.3 躺卧区域/地面

5.3.1 猪舍的地面应做防滑处理，并有清洁干燥的实体地面躺卧区，地面应向排污区稍有倾斜，排污区也应能有效排污。

5.3.2 猪舍内使用的垫料应及时补充并定期更换，保持其清洁卫生。

5.3.3 猪场的猪舍使用漏缝地板时，其间隙和板条宽度应适宜，以防猪只蹄部受到伤害。

5.4 温度与通风

5.4.1 猪场应保持适宜的猪舍温度，以避免猪只产生冷、热应激反应。

5.4.2 各种猪群适宜的温度范围见表 3:

表3

	适宜温度范围 (°C)
公猪	15~22
怀孕母猪	15~22
哺乳母猪	15~22
3 日龄内的乳猪	30~33
4 日龄至断奶的乳猪	26~30
断奶第一周内的仔猪	26~28
保育猪	22~26
生长育肥猪	15~22

5.4.3 猪舍应有效通风，避免高湿、冷凝水和贼风。

5.4.4 猪舍环境中的可吸入粉尘应不超过 10mg/m³，氨气浓度应不超过 20ppm。

5.5 照明

5.5.1 猪舍应配备足够的照明设备（固定或便携的），设备应能正常运行并定期检查和维护。

5.5.2 猪场应每 24 小时为舍饲的猪只提供至少 8 个小时连续光照，强度为 (20-50) LUX；至少 6 个小时的连续黑暗。若当地自然光照或自然黑暗的时长较短时，连续光照和黑暗的时长可作适当调整。

5.6 产仔系统

- 5.6.1 猪场的产仔系统应为待产母猪提供洁净、舒适的分娩区。
- 5.6.2 母猪应在预产日前 5 天~7 天转入产床。
- 5.6.3 产床长度不应小于 2.2m（长短应可调节），顶部横杆与站立时母猪的背部距离不应少于 0.15m，以利于母猪舒适起卧。鼓励为母猪提供适量的材料，以满足其筑窝行为的需要。
- 5.6.4 产床应有保护措施以防止挤压到仔猪。
- 5.6.5 鼓励使用无限制设施的自由产仔系统。
- 5.6.6 猪场应为仔猪提供补充热源，以保证其适宜的温度。

5.7 环境富集

- 5.7.1 为减少猪只异常行为的发生，猪场宜提供必要的材料满足环境富集的要求。
 - 5.7.2 应记录猪只的异常行为，对于重复出现的情况，猪场应予以分析，及时采取改善饲养管理和环境控制的措施。
- 5.8 鼓励为猪只提供可自由活动的安全运动场所。

6 养殖管理

6.1 人员能力

- 6.1.1 猪场管理者应接受过有关动物福利知识的培训，掌握动物健康和福利方面的专业知识，并了解本标准的具体内容且在其管理过程中熟练运用。
- 6.1.2 猪场饲养人员应接受过有关动物福利基础知识的培训，掌握动物健康和福利养殖方面的基本知识，并掌握本标准的具体内容且在其操作过程中有效应用。

6.2 日常管理

- 6.2.1 仔公猪应在 7 日龄内阉割，超过 7 日龄阉割时应使用止痛剂。
- 6.2.2 仔猪不宜断尾。发生咬尾时应采取有效措施或隔离被咬个体。
- 6.2.3 仔猪不宜剪牙。发生咬伤母猪乳头或仔猪面部损伤时应有可行的治疗措施和监控记录。
- 6.2.4 仔猪断奶日龄平均不宜早于 28 日龄；出于疾病控制等目的，可适当提前断奶。
- 6.2.5 哺乳期母猪应尽可能减少体重损失。
- 6.2.6 经产母猪和初产母猪应分开饲养。
- 6.2.7 猪群应总体稳定，减少混群。
- 6.2.8 应设立专门的治疗圈对伤病猪只进行隔离治疗，每天应至少进行两次检查。
- 6.2.9 对治疗无效的猪只应征求兽医的处理意见，并实施人道宰杀。
- 6.2.10 猪舍应保持良好的卫生状况，以减少猪只不适或疾病的发生。

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6.3 下列情况可对猪只进行短期限制饲喂：

- 兽医实施检查、治疗或手术期间；
- 特殊的喂饲阶段；
- 标记、清洗或称重期间；
- 实施人工授精程序时。

6.4 标识

6.4.1 永久性标识猪只时，可采用耳标、印标等方式。

6.4.2 暂时性标识猪只时，应保证所用材料不含有毒有害物质。

6.5 猪场应采取有效的控制措施，防止其他动物进入猪舍，对猪只造成伤害。

7 健康计划

7.1 猪场应制定符合法律法规要求的兽医健康和福利计划，内容应至少包括：

- 生物安全措施；
- 疫病防控措施；
- 药物使用及残留控制措施；
- 病死猪及废弃物的无害化处理措施；
- 其他涉及动物福利与健康的措施等。

7.2 猪场应定期对健康计划的实施情况进行检查，并适时进行该计划的更新或修订。

8 运输

8.1 运输方应满足国家有关法律法规及标准要求。

8.2 运输相关人员

8.2.1 司机和押运人员应具备运输猪只的经验，并接受过基本的兽医知识、伤病猪只管理和动物福利有关知识的培训。

8.2.2 应平稳驾驶运输车辆，并对猪只在运输过程中的状况进行有效监控。

8.3 装卸

8.3.1 应尽量减少猪只混群装载，伤病猪只不应进行装载运输。

8.3.2 应使用适当的装卸设备，尽可能采取水平方式装卸猪只。无法避免的坡道应尽量平缓（坡度不宜超过 20 度），应采取防滑的措施及安全围栏。

8.3.3 装卸猪只的过程应以最小的外力实施，尽可能引导猪只自行走入或走出运输车辆，不得采取粗暴的方式驱赶。

8.3.4 猪只到达目的地后应及时卸载。

8.4 运输容量

8.4.1 运输猪只的装载密度不得超过 3 头/m²，每隔断数量不宜超过 15 头。

8.4.2 运输车辆分层的高度应适宜猪只的正常站立。

8.5 运输前准备

8.5.1 猪只在运输前应能随时得到饮水。

8.5.2 在装车前 2 小时内，不得给猪只喂食。

8.6 运输

8.6.1 猪只应就近屠宰，尽量减少运输和等待时间。连续运输猪只的时间不宜超过 8 小时。

8.6.2 运输车辆所有与猪只接触的表面、装载坡台和护栏等，不应存在可能造成猪只伤害的锋利边缘或突起物。运输工具各部分构造应易于清洁和消毒。

8.6.3 运输车辆应有一定的防护措施，避免猪只摔倒或其他行为可能引起的伤害。车辆上（隔）层的地板应密封，以防止排泄物渗漏污染下层的猪只。

8.6.4 应尽量避免在极端天气进行猪只运输。运输猪只当日气温高于 25℃或低于 5℃时，应采取适当措施，减少因温度过高或过低引起的猪只应激反应。

8.6.5 运输过程中若出现猪只的伤害或死亡，应分析原因并立即采取措施以防止更多伤害和死亡的发生。

9 屠宰

9.1 屠宰企业应满足国家有关法律法规及标准要求。

9.2 屠宰企业应指定专人负责制定和实施人道屠宰的规定。该负责人应接受过有关动物福利知识和本标准的培训。

9.3 屠宰企业无特殊情况应立即宰杀运输过程造成的伤残猪只，尽量减少其痛苦。

9.4 待宰圈

9.4.1 屠宰企业应为猪只提供充足的饮水，宰前禁食不得超过 18 小时。

9.4.2 屠宰企业应将待宰圈中具有攻击性的猪与其他猪只分开。

9.4.3 待宰的猪只不应暴露在强光下照射，宰前检查宜在 220LUX 照明中实施。

9.5 屠宰设备

9.5.1 用于猪只致昏和宰杀的设备应安全、高效和可靠。

9.5.2 屠宰设备在使用前后应进行彻底清洁与消毒。

9.5.3 屠宰企业应由专人每天对屠宰设备至少检查一次，使其处于良好状态。屠宰企业应常备解决应急之需的备用屠宰设备。

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9.6 宰前处理

- 9.6.1 宰前处理应按规定的流程实施，尽量减少猪只的痛苦和不必要的刺激。
- 9.6.2 待宰圈通道及地面应做防滑处理。进入致昏点前的通道应有足够的空间，允许猪只并肩行走。
- 9.6.3 猪只进入致昏设备前的通道宜安装有喷淋设施，供猪只清洁身体，减少应激反应。
- 9.6.4 驱赶猪只应避免采用粗暴的方式。

9.7 屠宰方式

- 9.7.1 屠宰企业应采取尽量减少猪只痛苦和不适的屠宰方式，按 GB/T 22569 的要求实施人道屠宰。
- 9.7.2 屠宰的致昏工艺参数及从致昏到宰杀工序的时间间隔应符合 GB/T 22569 的要求。
- 9.7.3 采取气体致昏方式时，应控制适宜的气体浓度和猪只在致昏机内的停留时间，保证猪只在完成放血前无苏醒的可能。
- 9.7.4 宰杀用刀具应锋利，其刺入的位置与角度等应能达到放血快速和完全的要求，保证使猪只迅速死亡。
- 9.7.5 切断猪只血管后，至少在 20 秒内不得有任何进一步的修整程序，直到所有脑干反射停止。

10 分割加工

- 10.1 用于加工动物福利分割猪肉产品的原料猪只胴体，应来自养殖和屠宰过程均符合本标准要求猪场和屠宰企业。
- 10.2 加工企业应有效区分动物福利分割猪肉产品与常规产品的加工过程以避免产品的混淆。
- 10.3 动物福利分割猪肉产品的质量安全应符合 GB 2707、GB 2761、GB 2762 和 GB 2763 等相应的国家食品安全标准要求，畜禽养殖中的禁用物质不得检出。
- 10.4 动物福利分割猪肉产品应重点关注的质量检测项目为：不饱和脂肪酸、肉色、pH 和系水力。

11 记录与可追溯

- 11.1 猪只的福利养殖、运输、屠宰、加工全过程应予以记录，并可追溯。
- 11.2 猪场的种猪档案应永久保存。其余养殖、运输、屠宰、加工全过程的所有记录应至少保存三年。

附录 A
(资料性附录)
相关法律法规和标准

中华人民共和国动物防疫法
中华人民共和国畜牧法
兽药管理条例
畜禽规模的养殖法案防治案例
畜禽规模养殖污染防治条例
农业部公告第 168 号 饲料药物添加剂使用规范
GB 12694 肉类加工厂卫生规范
GB 13078 饲料卫生标准
GB 16548 病害动物和病害动物产品生物安全处理规程
GB 16549 畜禽产地检疫规范
GB 16567 种畜禽调运检疫技术规范
GB 18596 畜禽养殖业污染物排放标准
GB/T 5915 仔猪、生长肥育猪配合饲料
GB/T 17824.1 规模猪场建设
GB/T 17824.2 规模猪场生产技术规程
GB/T 17824.3 规模猪场环境参数及环境管理
GB/T 19525.1 畜禽环境术语
GB/T 19525.2 畜禽场环境质量评价准则
GB/T 21495 动植物油脂 具有顺, 顺 1, 4-二烯结构的多不饱和脂肪酸的测定
GB/T 25883 瘦肉型种猪生产技术规范
NY 5030 无公害食品生猪饲养兽药使用准则
NY 5031 无公害食品生猪饲养兽医防疫准则
NY 5032 无公害食品生猪饲养饲料使用准则
NY/T 65 猪的饲养标准
NY/T 388 畜禽场环境质量标准
NY/T 821 猪肌肉品质测定技术规范
NY/T 1167 畜禽场环境质量及卫生控制规范
英国防止虐待动物协会发布的猪的福利标准
加拿大防止虐待动物协会发布的猪的福利标准
美国全程质量检测认证发布的现场评审指导和运输质量保证手册

本标准起草工作组构成：

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世界农场动物福利协会

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STANDARDS OF CHINA ASSOCIATION CAS
FOR STANDARDIZATION 235-2014

Farm Animal Welfare Requirements: Pigs

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Foreword

China Association for Standardization (CAS) is a nationwide public organization that organizes and carries out activities about domestic and international standardization. Developing CAS Standard to meet the needs of enterprises and promote the work of enterprise standardization is one of CAS' work contents. Both groups and individuals at home can offer the suggestion on developing or revising CAS standard, and participate in the relevant work.

CAS standard is managed according to "Management Rules for the Standards of CAS", and developed on the basis of CAS 1.1—2001 "*Rules for the structure and drafting of standards of CAS*".

The draft of CAS Standard is open to the society for suggestion. Only with the vote of more than 75 percent experts and members who attend the Meeting can the draft be issued as the CAS Standard.

Organizations adopting CAS Standard should apply the registration of standard in accordance with the current national relevant rule and are in charge of the technical content.

It is the first time to issue the standard.

The annex A is informative annex.

In the process of implementing the standard, please mail the opinion and relevant materials to CAS or China Health Care Association if you find something to be revised or complemented.

Foreword

The Standard is set to ensure the quality and safety of animal products, promote the sustainable development of livestock husbandry industry, and fill in the gap of farm animal welfare standards in China.

It is developed on the basis of international advanced farm animal welfare concept, sets the farm animal health and welfare requirement during production and processing, considering current China scientific technology and social economic conditions.

The Standard is the requirement on the whole process of pig production, transportation, slaughtering and processing of Farm Animal Welfare Requirement.

Farm Animal Welfare Requirement: Pigs

1 Scope

The Standard sets the requirement on welfare friendly pig production, transportation, slaughtering and processing.

The Standard is applicable to the management of the whole process of pig husbandry, transportation, slaughtering and processing.

2 Normative references

The following documents are essential for the application of this standard. For any dated reference, only the version dated will be applicable for this standard. For undated references, the latest version (including all amendments) applies to this standard.

GB 2707 Hygienic standard for fresh (frozen) meat

GB 2761 National food safety standards of mycotoxins limits in food

GB 2762 National food safety standards of contaminants limits in food

GB 2763 National food safety standards of maximum pesticides residue limits in food

GB 5749 Hygienic standard for drinking water

GB/T 22569 Humane pig slaughter technical specifications

NY/T 5027 Drinking water requirement for Pollution-free livestock production

3 Terminology

The following terms are applicable to the standard.

3.1 Farm animal

Animals being bred or reared on farms or similar circumstances for food, hair, skin, fur processing or other purposes.

3.2 Farm animal welfare

Animals must be properly cared during rearing, transporting and slaughtering to protect them from fear, distress, pain and injury.

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3.3 Environmental Enrichment

Environmental enrichment is the addition of manipulable material and toy to provide necessary ambient stimuli in livestock housing to allow natural behaviors and psychological activities so that animals can reach a healthy psychological and physical balance.

3.4 Abnormal Behavior

Behaviors that may cause wounds and injuries.(eg. Tail-biting, belly-nosing, ear-biting), stereotypic behavior (sham-chewing of sows) etc.

3.5 Humane slaughter

Pre-slaughter handling and slaughtering methods that ensure minimized or lowered stress, fear and pain of pigs.

4 Food and Waste

4.1 Food

4.1.1 All feedstuffs and raw materials must comply with relevant state laws and regulations.

4.1.2 Producers must obtain information about constituents of compound feeds and feed supplements from the suppliers. Where producers mix their own feed, a specific note or feed plan detailing the constituents of the feed must be available, the origin of feeds must be traceable.

4.1.3 Spoiled, deteriorating, moldy, wormy or any contaminated elements, restaurant wastes or homologous food elements are strictly prohibited in feedstuff.

4.1.4 Feedstuff must be provided to meet the nutritional needs of pigs and are appropriate to specific breeds. Green feeds and straw powder shall be provided to breeders.

4.1.5 Pigs must have access to food each day and must be fed in ways that minimize bullying. Sudden changes in the type and quantity of food must be avoided. Gradual transition must be adopted if there is any change needed, the transition period must be more than 3 days.

4.1.6 For ration feeding pigs in a trough, there must be enough feeding space (i.e. 1.1 times shoulder width) for all pigs to feed at the same time.

4.1.7 For ad lib feeding, there must be a maximum of: 6 pigs per feed place when using a dry feeder; 14 pigs per feed place -- where there is the opportunity of mix water with the feed (wet and dry feeders).

4. 1. 8 When feeding troughs of group sows are employed, head and shoulder barriers must be set between each feeding place.

4. 1. 9 Automatic feeding system should be adopted to feed sows.

4. 1. 10 Feeding systems must be kept clean at all times. Measures must be taken to prevent the wet feed left from deteriorating in hot circumstances.

4. 1. 11 Feed storage must be cleaned regularly to prevent the contamination of stored animal feeds. Measures must be taken to prevent the feed from contamination by other animals.

4. 1. 12 Antibiotics should not be used for growth accelerating purposes. Growth hormones are prohibited. The feed added with medicine must be clearly labeled and recorded.

4. 1. 13 Relevant provisions of the withdrawal period must be strictly implemented before the pigs go to the market.

4. 2 Drinking Water

4. 2. 1 All pigs must have continuous access to an adequate supply of clean, fresh drinking water each day. Drinking water should comply with requirements set forth by GB 5749 and NY/T 5027 standards.

4. 2. 2 One drinking place must be provided per 10 pigs.

4. 2. 3 If wet and dry feeders are employed, additional drinkers must be supplied outside the pen at a rate of one drinker per 15 pigs. If tubular wet feed system is employed, additional drinkers must be supplied outside the pen at a rate of one drinker per 30 pigs.

4. 2. 4 Troughs must be installed at a height so that all pigs are able to access from all sides at the same time. Troughs should be managed in a way that ensures they are capable of dispensing water at all times. Drinkers must be installed at a height suitable for the pigs to access and must have flow rates of sufficient levels to meet the needs of each class of pig. Water saving devices are recommended.

4. 2. 5 Water suppliers must be kept thoroughly clean. The water supply system must be regularly cleansed and sterilized.

4. 2. 6 Provision must be made to ensure an emergency supply of suitable drinking water in case normal supplies fail or an emergency.

4. 2. 7 Warm water should be provided for piglets and farrowing sows in winter.

4. 2. 8 When medicine and anti-stress agent need to be added into drinking water, special equipment must be used and records must be taken.

5 Environment

5.1 Buildings

5.1.1 All accommodations must be constructed in accordance with applicable state laws and regulations.

5.1.2 For all accommodation, the key points relating to animal welfare must be recorded on the far site plan. Records must include the number of pigs in relation to age, weight, feeding, drinking, and bedding space.

5.1.3 There must be no features of the environment and materials of the production system that are toxic or hazardous.

5.1.4 Provisions must be made to maintain the thermal environment at recommended temperatures. Floors and walls must be easily cleansed and disinfected. Provisions must be made to avoid surfaces that pigs come in contact with contain sharp edges or features that are likely to cause injury.

5.1.5 All electrical installations must be properly earthed and set up in accordance with relevant regulations, inaccessible to pigs and safeguarded from rodents.

5.1.6 Establishment for the safe disposal of all wastes systems is required to ensure regular and proper operations.

5.1.7 Farms must have special care areas for weak, maimed, injured and sick pigs, and can separate them from other pens.

5.2 Space allowances

5.2.1 The minimum space allowances for growing pigs are as Table 1:

Table 1

Live weight (kg)	Minimum space (m ² /per)	Minimum lying area (m ² /per)
<20	0.35	0.2
20~50	0.6	0.4
50~80	0.9	0.6
80~110	1.2	0.8

5.2.2 The minimum space allowances of pen for sows are as Table 2:

Table 2

	Minimum space (m ² /per)	Minimum lying area (m ² /per)
Sows	3.0	1.5
Gilts	2.5	1.2

5.2.3 Boars must be kept in pens that allow them to turn around freely , with minimum space of 7.5m²/pig.

5.2.4 Service pens must be at least 12m² in area, in order to be large enough to allow courtship and mating.

5.3 Lying area/floors

5.3.1 The floors must be slip resistant, have a clean dry lying area gently sloped to provide drainage. Dunging area should also be effectively drained.

5.3.2 Straws must be topped and replaced regularly to maintain sanitation.

5.3.3 When concrete slatted floors are used, the width of the openings must be suitable to avoid trotters' injury.

5.4 Thermal environment and ventilation

5.4.1 Efforts must be made to ensure that the thermal environment is not so hot or so cold. Provisions must be made to protect pigs from cold and heat stress.

5.4.2 Recommended temperatures for various groups of pigs are as Table 3.

Table 3

	Recommended temperature
Boar	15~22
Pregnant sows	15~22
Lactating sows	15~22
Sucking pig first 72 hours	30~33
Sucking pig 96 hours till weane	26~30
Weaner at 1 st week	26~28
Growing pigs	22~26
Finisher	15~22

5.4.3 Effective ventilation of building to avoid high humidity, condensation and harmful wind.

5.4.4 Inhalable dust should not exceed 10mg/m³. Concentration of ammonia in the air should not reach 20 ppm.

5.5 Lighting

5.5.1 In all pig housing, adequate lighting, when fixed or portable, must be available to enable them to be thoroughly inspected at any time.

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5. 5. 2 In each period of 24 hours, housed pigs must have access to an area that provides a period of at least 8 hours continuous light with an intensity of 20 to 50 lux and a period of continuous darkness of at least 6 hours. This may be adjusted to correspond with the duration at the time if natural daylight or natural darkness is shorter.

5. 6 Farrowing systems

5. 6. 1 In all farrowing systems, sows must be settled into clean, comfortable farrowing quarters before the piglets are due to be born.

5. 6. 2 Sows should be placed in farrowing crates at (5~7) days before the expected farrowing date.

5. 6. 3 Farrowing crates must not be shorter than 2.2 meters (The length should be adjustable), the bars must be no less than 0.15m higher over the back of the pig at standing position, to ensure the sows can stand up and lie down comfortably. Suitable quantities of manipulable material (straw/paper) is recommended to allow the sow to satisfactorily perform nesting behavior.

5. 6. 4 Farrowing crates must have protection facilities to prevent the piglets from crushing.

5. 6. 5 Free farrowing system without confinement is recommended.

5. 6. 6 Piglets must be provided with additional heat to ensure the comfortable temperature.

5. 7 Environmental enrichment

5. 7. 1 Adequate materials should be provided to prevent abnormal behaviors.

5. 7. 2 Abnormal behaviors must be recorded and if they develop repeatedly, a program of analysis and modification must be pursued to improve management and environment control.

5. 7. 3 Safe sports field for free movement is recommended.

6 Management

6. 1 Staff competency requirements

6. 1. 1 Managers must be thoroughly trained, skilled and competent in animal husbandry and welfare, understand the detailed content of this requirement and are able to implement them in practice.

6. 1. 2 Stockmen must be trained, skilled and competent in basic animal husbandry and welfare, understand the general content of this requirement and are able to use them effectively in practice.

6.2 Daily care

6.2.1 Physical methods of castration must be conducted within 7 days after birth. Castration after 7 days must be provided with analgesia.

6.2.2 Piglets should not be tail docked, there must be an active contingency plan or isolation for the incidence of tail biting.

6.2.3 Piglets should not be teeth clipped, there must be an active contingency plan and monitoring program for the incidence of udder damage and piglets' body and facial scarring

6.2.4 Piglets should not be weaned before 28 days old, unless for disease control purposes, they can be weaned at an early age.

6.2.5 Measures must be taken to minimize weight loss for lactating sows.

6.2.6 Sows and gilts must be kept separately.

6.2.7 Sows must be kept in stable groups and reduce mixing.

6.2.8 Injured pigs must be kept in separate pens to get individual treatment, and be checked at least twice a day.

6.2.9 In the case of ineffective of the treatment of pigs, veterinary advice must be sought and implement humane slaughter.

6.2.10 Piggens must be maintained at a good hygienic condition to reduce discomfort and disease.

6.3 Short-term feed restriction is allowed during following circumstances:

- veterinary checking, treatment or operation;
- special feeding period;
- marking, cleaning or weighing period;
- artificial insemination.

6.4 Identification

6.4.1 Earing tagging and slap marking should be implemented where it is necessary to mark pigs for permanent identification.

6.4.2 Materials used for temporary identification must be non-toxic.

6.5 Effective measures must be taken to prevent other animals from entering the farm and cause injury to the pigs.

7 Health planning

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7. 1 Producers must develop veterinary health and welfare plan compliance with legal and regulatory requirements, at least including:

- biosecurity;
- disease prevention;
- drug use and residual control;
- treatment of dead pigs and waste;
- other measures related to animal welfare and health.

7. 2 Producers must check implementing situation of health plan regularly, renew and amend it in time.

8 Transportation

8. 1 Pigs carrier must meet the relevant national laws, regulations and standard.

8. 2 Relevant transporters

8. 2. 1 Personnel in charge of pig transportation must be able to demonstrate their competence in pigs when loading, unloading and while in transit, have basic veterinary knowledge, able to handle and manage injured animals and have received training in animal welfare.

8. 2. 2 Vehicles must be driven slowly and steadily. Effective monitoring must be taken during transportation.

8. 3 Loading/unloading

8. 3. 1 Finishing pigs must be managed to minimize mixing for transportation. Casualty animals should not be transported.

8. 3. 2 Appropriate equipment should be used at handling, try to load and unload the pigs at horizontal level (certainly no more than a 20 degree angle). Ramp should be flat, non-slip measures and security fence should be installed.

8. 3. 3 Unloading should be conducted with a minimum force, using peaceful way of driving, avoid violent driving.

8. 3. 4 Pigs must be unloaded immediately at the slaughterhouse or farm.

8. 4 Transport space allowance

8. 4. 1 The density during transportation must not be higher than 3/m², number in each partition should not be more than 15.

8. 4. 2 The height of each tier must be suitable for pigs at standing position.

8. 5 Preparation for transport

8. 5. 1 Pigs must have access to water up to the point of transport.

8.5.2 No feed provided 2 hours before transportation.

8.6 Transportation

8.6.1 Pigs must be slaughtered as close as possible to the point of rearing to minimize the duration of transportation and waiting. Pigs must not be transported for more than 8 hours-- the time being calculated from first animal loaded to last unloaded.

8.6.2 There must not be sharp edges or protrusions on all surfaces, loading platforms and guardrails of vehicles in contact with pigs transport. Each part of the vehicles must be designed for easy cleaning and disinfection.

8.6.3 Vehicles must have protective measures to avoid injuries caused by falling or other behaviors. The upper floor of the vehicle must be sealed to prevent leakage of excrement.

8.6.4 Producers must prevent transportation during extreme weathers. When the temperature is higher than 25 °C or below 5 °C, appropriate measures must be taken to reduce stress happening caused by high or low temperature.

8.6.5 If any injury or death happens during transportation, causes must be analyzed and immediate measures must be taken to avoid further injuries and more deaths.

9 Slaughtering/killing

9.1 Slaughtering enterprises must meet the relevant national laws, regulations and standards.

9.2 Slaughtering enterprises must designate a person responsible for the formulation and implementation of the humane slaughtering provisions. The person in charge must have received training on animal welfare and the standard.

9.3 Injured pig caused during transportation must be slaughtered immediately if there is no exceptional circumstance, to avoid its unnecessary suffering.

9.4 Waiting lairage

9.4.1 Slaughterhouses must provide adequate water for the pigs and fasting must not exceed 18 hours for any pigs prior to slaughter.

9.4.2 Pigs that are likely to be aggressive must be separated from each other at lairage.

9.4.3 Pigs in the waiting lairage must not be exposed to bright light except during antemortem inspection, which must be carried out in a minimum of 22- lux illumination.

9.5 Slaughter equipment

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9. 5. 1 The equipment used for the stunning and killing must be safe, effective and reliable.

9. 5. 2 All slaughter equipment must be thoroughly and appropriately cleaned and disinfected before and after use.

9. 5. 3 Slaughter equipment must be checked at least once daily by specialized personnel to ensure it is in working order and in a good state of repair.

9. 6 Pre-slaughter handling

9. 6. 1 Pre-slaughter handling must be carried out according to regulatory procedures to avoid unnecessary stimulus or distress.

9. 6. 2 Flooring must be non-slip in waiting lairage and passageways. Pigs must not be moved unless the way forward is clear, and there is adequate space available for them to move into. All pens and passageways must be designed and constructed to allow pigs to walk side by side.

9. 6. 3 Shower facilities should be installed at passageways leading to stunning to provide cleaning and reduce stress.

9. 6. 4 Violent driving is prohibited.

9. 7 Slaughter/killing methods

9. 7. 1 Slaughtering must be carried out in a method that minimizes pigs' suffering and discomfort, humane slaughtering according to GB/T 22569.

9. 7. 2 Technological parameters and the time between stunning and slaughtering should follow the requirement of GB/T 22569.

9. 7. 4 Gas stunning method must be carried out in the facilities that can ensure the provision of adequate gas for the waiting pigs, the concentration of the gas and the time that the pigs being kept in the gas chamber must be adequate to ensure that there is no possibility of any pigs displaying signs of recovery prior to bleed-out being completed.

9. 7. 5 Slaughter knives must be sharp, the position and angle of piercing must meet the requirement of rapid and complete blood loss from the pig to ensure the animal is dead quickly.

9. 7. 6 After cutting off of the blood vessels, there must be no further trimming procedure on the animal for at least 20 seconds, and in any case until all brainstem reflexes have ceased.

10 Processing

10.1 Raw materials for processing must come from farms and slaughterhouses that their farming and slaughtering process meet the requirements of this standard

10.2 Processing company should effectively separate the procedures for welfare friendly pork and ordinary one to avoid mixing.

10.3 Quality of processed welfare friendly pork should meet the national food safety standards of GB 2707, GB 2761, GB 2762 and GB 2763, the banned substances must not be detected.

10.4 Quality checking items for processed welfare friendly pork products are: unsaturated fatty acid, color, ph value and water-holding capacity.

11 Records and Traceability

11.1 The whole process of production, transportation, slaughtering and processing must be recorded and can be traceable.

11.2 Except for the breeders' files that must be kept permanently, all the records including production, transportation, slaughtering and processing must be kept for at least 3 years.

Annex A

(Informative Annex)

Related regulations and standards

Animal Epidemic Prevention Law of People's Republic of China
Animal Husbandry Law of People's Republic of China
Veterinary Management Case
Scale livestock farming Prevention Act Case
Scale livestock farming Pollution Prevention Regulations
Feed Additive use norms—No. 186 Announcement of Ministry of Agriculture
GB 12694 Meat processing plant hygiene norms
GB 13078 Feed hygiene standards
GB 16548 Ill animals and animal products, biological diseases safe handling procedures
GB 16549 Animal origin and quarantine norms
GB 16567 Breeding animal transport and quarantine technical specifications
GB 18596 Emission standards for livestock husbandry industry
GB/T 5915 Piglets, growing-finishing pigs feed
GB/T 17824.1 Large-scale farm construction
GB/T 17824.2 Scale farm production and technological processes
GB/T 17824.3 Scale farms environmental parameters and environmental management
GB/T 19525.1 Livestock Environment Terminology
GB/T 19525.2 Environmental quality evaluation criteria for farms
GB/T 21495 Animal and vegetable fats with cis, cis 1,4 - diene structure determination of unsaturated fatty acids
GB/T 25883 Lean pig production specifications
NY 5030 Guidelines for the use of veterinary drugs on pollution-free hog
NY 5031 Guidelines for pollution-free hog veterinary vaccination
NY 5032 Guidelines for feed use to pollution-free hog
NY/T 65 Farming standard of pigs
NY/T 388 Livestock farm environmental quality standards
NY/T 821 Porcine muscle quality measurement specifications
NY/T 1167 Livestock farm environmental quality and hygiene control standards
RSPCA standards for pig welfare
Canada RSPCA standards for pig welfare
On-site assessment guidance and Transportation Quality Assurance Manual by USA
Quality Testing and Certification

Drafting team of this standard

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