

1. Purchase of animals used for experimental purposes		
Small laboratory animals	Directive 2020/63 EU, Art 10: "1. Member States shall ensure that animals belonging to the species listed in Annex I may only be used in procedures where those animals have been bred for use in procedures". Only applicable for mice, rats and others but not for pigs and large or small ruminants	
Large farm animals	FA can be obtained from livestock. General public laws and regulations for breeding units of livestock animals are applicable.	
2. Legislation addressing hygiene issues for breeding and housing of small laboratory animals and farm animals in livestock or kept as experimental animals. Overview over German national (*) and applicable European legislation for experimental animals.		
Species	Applicable law/regulation/directive indicated by the authorities	Summary of required or recommended hygiene measures
Small laboratory animals and Large farm animals kept as experimental animals	EU Directive EU 2010/63 [1] Animal Protection Law* [2] Tierschutzversuchstierverordnung* [3]	In article 33 (1): ...all animals has to be provided with the appropriate housing, environment and necessary food, water and care....all animal husbandries must have a strategy to ensure the maintenance of a appropriate state of health that ensures animal welfare and meets the scientific requirements. The strategy has to include regular health examinations as well as a microbiological surveillance program. more general information, no detailed hygiene monitoring aspects more general information, no detailed hygiene monitoring aspects
Farm animals in general	Gesetz zur Vorbeugung vor und Bekämpfung von Tierseuchen (Tiergesundheitsgesetz - TierGesG)* [4] Verordnung über anzeigepflichtige Tierseuchen (TierSeuchAnzV) [5] Verordnung über meldepflichtige Tierkrankheiten [6]	regulate the prevention and measures of and against notifiable and reportable animal diseases provides a list with notifiable animals disease in Germany provides a list with reportable animals disease in Germany
Small ruminants kept as farm animals	No special legislation	
Large ruminants kept as farm animals	Tierschutz-Nutztierhaltungsverordnung (TierSchNutztV)* [7]	only applicable for calves, not for adult animals, general requirements for housing, space, no special hygiene requirements, control of calves , welfare twice a day
Pigs kept as farm animals	Tierschutz-Nutztierhaltungsverordnung (TierSchNutztV)* [7]	general requirements for housing, space, no special hygiene requirements, control of animals welfare once a day

	Regulation for hygiene issues of pig husbandries* [8]	internal controls to reduce animal disease intake risk, control of animal in-and outcome, veterinary heard care with clinical, examinations twice a year or once per mast round Special examinations in suspected cases with focus on Schweinepest, African Schweinepest, Aujeszksysche disease and Brucellose
1. Recommendations addressing hygiene issues for breeding and housing of small laboratory animals and farm animals in Germany before 2020		
Small laboratory animals and Farm animals kept as experimental animals	<p>EMPFEHLUNG DER KOMMISSION mit Leitlinien für die Unterbringung und Pflege von Tieren, die für Versuche und andere wissenschaftliche Zwecke verwendet werden [9]</p> <p>„FELASA Recommendations for the health of mouse, rat,...colonies in breeding and experimental units“ [10]</p> <p>“FELASA Recommendations for the health monitoring of experimental units of calves, sheep and goats...” [11]</p> <p>“FELASA Recommendations for the health monitoring of breeding colonies and experimental units of cats, dogs and pigs...” [12]</p> <p>Federation of European Laboratory Animal Science Associations recommendations of best practices for the health management of ruminants and pigs used for scientific and educational purposes [13]</p>	<p>general recommendations; quarantine, microbiological health monitoring, prophylaxis, daily health control and species specific general recommendations for farm animals, pigs and miniature pigs regarding vaccination, antiparasitic treatments</p> <p>provide general recommendations and special pathogen list to be excluded for hygiene monitoring of experimentally housed mice and rats</p> <p>provide general recommendations and special pathogen list to be monitored as detailed recommendations for hygiene monitoring for calves, sheep and goats kept for experimental purpose</p> <p>provide general recommendations and special pathogen list to be monitored as detailed recommendations for hygiene monitoring for breeding and experimentally housing of cats, dogs and pigs</p> <p>published in 2021 with general and updated recommendations of health management for farm animals. This was not applicable when we performed our survey.</p>
Small and large ruminants kept as farm animals	Recommendations for hygiene measures for husbandry of ruminants 7.7.2014* [14]	focus on prevention and disease management of Q-fever and paratuberculosis: general recommendations and special remarks regarding vaccination

1. Directive 2010/63/EU of the European Parliament and of the Council. Available online: <https://eur-lex.europa>.
2. Tierschutzgesetz (TierSchG). **24.07.1972 last changes 19.06.2020.**
3. Verordnung zum Schutz von zu Versuchszwecken oder zu anderen wissenschaftlichen Zwecken verwendeten Tieren (Tierschutz-Versuchstierverordnung - TierSchVersV). **01.08.2013 last changes 31.08.2015.**
4. Gesetz zur Vorbeugung vor und Bekämpfung von Tierseuchen (Tiergesundheitsgesetz - TierGesG). **21.11.2018 last changes 20.11.2019.**
5. Verordnung über anzeigepflichtige Tierseuchen (TierSeuchAnzV). **23.05.1991 last changings 31.3.2020.**
6. Verordnung über meldepflichtige Tierkrankheiten. **11.02.2011.**
7. Tierschutz-Nutztierhaltungsverordnung (TierSchNutzTV). **25.10.2001, last changes 29.01.2021.**
8. Verbraucherschutz, B.f.J.u. Schweinehaltungshygieneverordnung-SchHaltHygV. **07.06.1999; last changings 02.04.2014.**
9. EMPFEHLUNG DER KOMMISSION vom 18. Juni 2007 mit Leitlinien für die Unterbringung und Pflege von Tieren, die für Versuche und anderewissenschaftliche Zwecke verwendet werden. **18.07.2007.**
10. Mahler, M.; Berard, M.; Feinstein, R.; Gallagher, A.; Illgen-Wilcke, B.; Pritchett-Corning, K.; Raspa, M.; Revision, F.W.G. FELASA recommendations for the health monitoring of mouse, rat, hamster, guinea pig and rabbit colonies in breeding and experimental units. *Lab Anim-Uk* **2014**, 48, 178-192, doi:10.1177/0023677213516312.
11. Reh binder, C.; Alenius, S.; Bures, J.; de las Heras, M.; Greko, C.; Kroon, P.S.; Gutzwiller, A.; Hlth, F.W.G.A. FELASA recommendations for the health monitoring of experimental units of calves, sheep and goats - Report of the Federation of European Laboratory Animal Science Associations (FELASA) Working Group on Animal Health. *Lab Anim-Uk* **2000**, 34, 329-350, doi:Doi 10.1258/002367700780387723.
12. Reh binder, C.; Baneux, P.; Forbes, D.; van Herck, H.; Nicklas, W.; Rugaya, Z.; Winkler, G.; Hlth, F.W.G.A. FELASA recommendations for the health monitoring of breeding colonies and experimental units of cats, dogs and pigs - Report of the Federation of European Laboratory Animal Science Associations (FELASA) Working Group on Animal Health. *Lab Anim-Uk* **1998**, 32, 1-17, doi:Doi 10.1258/002367798780559428.
13. Berset, C.M.; Caristo, M.E.; Ferrara, F.; Hardy, P.; Oropeza-Moe, M.; Waters, R.; Anim, F.W.G.F. Federation of European Laboratory Animal Science Associations recommendations of best practices for the health management of ruminants and pigs used for scientific and educational purposes. *Lab Anim-Uk* **2021**, 55, 117-128, doi:Artn 002367722094446110.1177/0023677220944461.
14. Empfehlungen des Bundesministeriums für Ernährung und Landwirtschaft für hygienische Anforderungen an das Halten von Wiederkäuern. **07.07.2014.**