

# **Rules for Multiplication**

**Valid from 1 January 2018**

# Table of Contents

1	Background.....	2
2	Changes to the Rules for Multiplication .....	2
3	Multiplication status .....	3
4	Inspection and advisory service.....	4
5	Breeding stock .....	5
6	Identification and recordings.....	6
7	Sale.....	9
	Appendices .....	11
1	User codes and symbols of breeding stock .....	12
2	Rules for completion of delivery notes .....	13
3	Use of breeding stock in multiplication.....	14
5	User payment.....	16

# Rules for Multiplication 2018

## 1 Background

- 1.1 The Rules for Multiplication are laid down pursuant to the Agreement on Multiplication as well as Rules for Breeding (*Regler for Avl*) via Agreement on Breeding (*Aftale om Avl*) cf. 5.5.
- 1.2 The Rules for Multiplication set out the technical guidelines for the implementation of multiplication work with the herds that have entered into an Agreement on Multiplication or Agreement on Nucleus Breeding with SEGES Svineproduktion, Landbrug & Fødevarer (Danish Pig Research Centre, *Danish Agriculture & Food Council – (DPRC)*).

## 2 Changes to the Rules for Multiplication

- 2.1 The Rules for Multiplication are laid down by DPRC and are subject to changes as laid down in the Agreement on Multiplication.
- 2.2 Changes to the Rules for Multiplication are carried out as follows:
  - a) No later than 15 May: DPRC will forward a draft of the Rules for the coming year to DanAvl Opformering (*Association of Multipliers*),
  - b) No later than 15 June: DPRC and DanAvl Opformering will conclude the negotiations on the new Rules,
  - c) No later than 1 July: DPRC stipulates the Rules to which changes have been made,
  - d) After 1 July: DPRC forwards the revised set of rules to DanAvl Opformering and the multiplication herds,
  - e) No later than 1 December the revised set of rules will be forwarded in its final version to the multiplication herds.
- 2.3 The Rules for Multiplication can be changed within one year. This can happen, only, if the DPRC and DanAvl Opformering are in agreement as regards formulation and entry into force.
- 2.4 Changes to the Rules of Multiplication according to cf. 2.3 are to be forwarded without delay to the Multipliers by electronic e-mail or letter.

### 3 Multiplication status

3.1 DPRC enters into the Agreement on Multiplication or terminates it upon recommendation by Breeding & Genetics, DPRC.

3.2 The head of secretariat participates, being authorized to speak and take the minutes, at the presentation of recommendations made by Breeding & Genetics, DPRC to the board in Danish Agriculture and Food Council, Pig production (in Danish: sektorbestyrelsen i Landbrug & Fødevarer, Svineproduktion) hereinafter referred to as LFS, in the assessment of Multiplication herds.

3.3 Authorized Multiplication herds will be assessed by Breeding & Genetics, DPRC on an ongoing basis which will be presented to LFS.

3.4 Included in the assessment of previously authorized Multiplication herds are key index and operational figures of the "Multiplication Report" (a breeding tool Breeding & Genetics, DPRC placed at the disposal of the Multiplication herds).

The herd may be given notice to be terminated by 12 months' notice should the index level be too low. Prior to the expiration of the notice period, the notice of termination will be re-evaluated or annulled should the index level have been corrected.

3.5 The LFS is reviewing the material of Breeding & Genetics, DPRC and decides which Herds shall be terminated their Agreement on Multiplication.

Upon termination of an Agreement on Multiplication the Multiplier has the right to speak before the LFS.

3.6 In the event of re-eradication (fully or partially) or start-up of a Multiplication herd an action plan for breeding shall be elaborated. This action plan shall be elaborated by means of collaboration of the Multiplier and the breeding advisor or his representative.

A plan for re-eradication must be approved by DPRC prior to any re-eradication of the Multiplication herd.

3.7 It is prohibited to engage in experiments or test procedures without any prior written consent by Breeding & Genetics, DPRC. To "Experiments" are considered the sampling or issuing of biological material from any of the herd's animals, or from the holding's area with the intent to analyse in order to uncover or determine heritable traits of the animal.

3.8 As far as an approved herd is situated abroad the national veterinary legislation is applicable. As a minimum requirement, the herd must have been declared free from lice, mange and dysentery. Furthermore, the herds' PRRS-status must be known and reported to Breeding & Genetics, DPRC.

In addition to that, oestrus stimulating drugs or hormones may not be present or used in the herd. Farrowing or abortion induction in the herd must not take place.

Furthermore, herds in the EU must comply with EU-legislation in force.

Herds in Denmark must also be DANISH-approved and comply with the rules for SPF-SuS health control (In Danish: Sundhedskontrollen) for health monitoring.

#### **4 Inspection and advisory service**

- 4.1 As required, the breeding advisor – or his representative – carries out inspections in the individual herd (possibly unannounced) or upon the Multipliers request.
- 4.2 Breeding stock and their offspring may be subject to a parentage test. Upon detection of faults caused by the Multiplier expenses for control are charged to the Multiplier.
- 4.3 Charts of all breeding stock and young animals above 25 kg or another system for identification of animals in a pen, approved by an advisor from Breeding & Genetics must be available in the facility. The charts must be updated daily.
- 4.4 Breeding & Genetics, DPRC is entitled to exclude litter results from the index calculations should this be determined by circumstances regarding registration or other conditions.
- 4.5 Fees for user payment are stated in Appendix 5.

## 5 Breeding stock

- 5.1 Approved breeding stock is defined as purebred pregnant gilts, sows and boars being used for the production of purebred and / or hybrid litter pursuant to this set of rules, however, exempt are:
- a) Breeding stock bearing the halothane- or RN<sup>-</sup>-gene,
  - b) Boars with the F4-status: unknown, RS/SR, and SS,
  - c) Landrace and Yorkshire breeding stock with coloured spots,
  - d) Breeding stock with melanomas,
  - e) Breeding stock that suffer from trembling,

Furthermore, the breeding advisor is entitled to reject breeding stock with atypical breed character. Atypical breed character is defined in joint council with Dansk Svineavl (*Association of Breeders*).

Whenever pregnant breeding stock is rejected due to trembling, melanoma or atypical breed character, the litter will be approved. This is also applicable to Landrace litter which parent animal (or both) have been rejected on the grounds of coloured spots.

- 5.2 Landrace and Yorkshire sows must at least have 13 formed teats in order to obtain approval. Exempt from this are Yorkshire sows used for production of hybrid boars for the production of finishers where requirements to the amount of teats are not applicable.
- Landrace and Yorkshire boars must have at least 14 formed teats.
- 5.3 Any of the herds hybrid production sows must be registered in the Pig Breeding Database (hereinafter referred to as Database) with an ID.
- 5.4 All active, purebred sows in a Multiplication herd must be recorded in the Database, as must the litters they produce. Approved breeding stock of Multiplication herds can be used in accordance with Appendix 3 (cf. also 5.5, 5.7 and 5.8).
- The herds' entire amount of approved purebred sows must be composed of at least 50%. However, the amount of approved purebred sows must be at least 80% of the herds' entire amount of sows should the Multiplier be engaged in the sale of F2-females (LYL/LLY or YLY/YYL).
- 5.4.1 Sows for multiplication can be produced within the herd in accordance with Appendix 3.
- 5.4.2 Boars must be resistant to F4-infection (genotype RR) cf. 5.1 b) and can be obtained through the following channels:
- a) Own production
  - b) C-section
  - c) AI
  - d) Purchased from nucleus breeding herds

- 5.5 Multiplication herds can produce and sell hybrid boars for the production of finishers according to the following conditions:
- a) For the production of hybrid boars, a maximum of one sow is permitted per 20 multiplication sows in the herd.
  - b) At the time of sale, the index of hybrid boars must be a minimum of 95 as an average of index of parents. As for hybrid boars originating from Yorkshire or Landrace, the index requirements must be met by use of Yorkshire or Landrace male index (breeding index, calculated according to the breeding objective of the sire line) for Yorkshire or Landrace parent.  
  
If boars are sold as livestock from Multiplication herds, a fee must be paid to Dansk Svineavl. The size of this fee is determined by DPRC, or a committee appointed by DPRC.
- 5.6 Approval of breeding stock is carried out by the breeding advisor or his representative (cf. 4.1).
- 5.7 An approval fee must be paid upon registration of Landrace and Yorkshire boars produced on-farm.
- 5.8 Females, which are produced on-farm and are not used in the Multipliers' own herd, may be sold against payment of fee. The fee is determined by DPRC, or a committee appointed by DPRC.
- 5.9 As regards to the mating registration it is not permitted to keep boars and purebred females that are more than 5 months old in the same pen.

## **6 Identification and recordings**

### **6.1 Breeding stock and matings**

At their first use/service, boars and females must be ear-tagged with a name. The animal must have its approved DanAvl ear tag in its ear.

First mating of gilts in multiplication herds must take place in the age interval 120-400 days.

Boar names consist of a maximum of six characters of which at least one is a letter, which may be supplemented by numbers. The letter(s) in boar names must be placed as the first character(s) in the name. Only numbers and letters (A-Z) can be used in boar names.

All matings of breeding stock must be reported to the Database including date of mating and the ID of the boar used. If multiple matings are made within the same heat – the same boar must be used – and only the first date of mating should be registered.

All entered and culled females and boars in the herd must be reported to the Database.

## 6.2 Farrowing

Farrowing must be reported to the Database for all born litter, by purebred sows in the herd, including information about the total number of piglets born in the litter, date of farrowing and mating of the respective litter.

Reported litters are automatically appointed a user code when reported to the Database, cf. Appendix 1.

The advisor from Breeding & Genetics or his substitute can change the user code to 300 for litter that were not tagged or recorded in due time at the time of inspection (cf. 6.3 and 6.6) – in addition, the herd owner will be fined a penalty per litter, if the data reporting is delayed (cf. Appendix 5).

## 6.3 **Valid for Danish herds, only:**

In the first day of life and before litter equalisation, any piglets in Danish herds that are the offspring of Landrace or Yorkshire sows must be registered and tagged with approved piglet ear tags (cf. 6.5 and 6.6).

At weaning at the latest, the DanAvl ear tag (with the same breed combination, herd- and serial no. as the piglet ear tag) must be tagged in the animals left ear (hybrid pigs may be tagged in their right ear). Then, the piglet ear tag may be removed.

Live piglets are ear tagged with piglet ear tags and registered with a 9-digit DanAvl ID linked to the farrowing.

However, the following piglets may be registered and tagged with an 11-digit ID in an independent 4-digit herd number, if they are only bred for slaughter and not for sale.

- YL/LY males
- code 200 LL/YY males.

On the front, ear tags for piglets must have a serial number from the ID, and on the back the herd number and breed combination. Alternatively, yellow DanAvl ear tags, that are accepted for use from the first day of life may be used.

The piglet ear tag may be kept in all animals, if it is not closed around the ear.

Ear notching is voluntary. However, it is particularly recommended for purebred litter.

Litter equalisation may be performed after registration (without further registration on sow/transfer card).



In the farrowing section, any dead piglet with an ear tag is registered by the date of death and ID-number regardless of age. It is recommended to cut off any ear tags on dead piglets in the farrowing section and store these in a bag marked by date. At the end of the day, when all ear tags have been collected, the bag is closed and stored, i.e. one bag is used per day.

All registrations in the Database must have been performed no later than 14 days after farrowing.

6.4 Offspring of Duroc-sows – as well as **Landrace- and Yorkshire-sows in herds outside of Denmark**

All pigs, in approved litters of Duroc-sows - as well as Landrace- and Yorkshire-sows in herds outside of Denmark - must within their first day of life and prior to litter equalization be marked and registered with a piglet ear tag or tattooed with an ID-number or the name of the sow.

At weaning at the latest, the piglets must be registered in the Database and be tagged with an approved DanAvl ear tag (see cf. 6.5) in the animals left ear (hybrid pigs may be tagged in their right ear).

Ear-tagging and registration can be left out for females, where the breed combination is HD or YD as well as castrates of the combinations YL/LY (where the mother is in a herd outside of Denmark), see however cf. 7.2.

6.5 DanAvl ear tags must be approved by DPRC.

The complete ID must be printed on the ear tag. The complete ID in the ear tag must be identical with the ID reported to the Database.

For ear tags the following applies:

The year/counter must be printed on the ear tag.

The serial number must have five (5) digits – also, if the first digit is zero (0).

The breed is indicated by *one* letter:

D – purebred Duroc

L – purebred Landrace

Y – purebred Yorkshire

X – F1 crossbreed between Landrace and Yorkshire

Z – F2 crossbreed between Landrace and Yorkshire or Duroc hybrid

DanAvl has no demands to physical appearance of the back sides. However the tags should fulfil the national legislation required.

DanAvl ear tags are ordered at Breeding & Genetics, DPRC (via <http://partner.danavl.dk> for Danish multiplication herds).

In the event that an approved DanAvl ear tag is lost, as fast as possible it must be replaced by a new and approved ear tag.

No later than January 1, 2017, ear tags in use must be electronic. This applies to all multiplication herds. DanAvl should receive information about the registration of electronic ID for a pig before the pig is removed

from the herd, but no later than 14 days after the ear tag has been applied.

6.6 All registrations must be sent to and approved by the Database no later than 14 days after the date of occurrence. In addition, the herd must have updated records for all approved breeding stock and their offspring, including:

- a) Identification
- b) Parentage
- c) Dates of mating
- d) Farrowing and litter recordings
- e) Deaths of numbered ear-tagged piglets in the farrowing unit (cf. 6.3).

Any registration from the stable (housing facility) must be kept for at least two years in order to carry out control or correct faults. This applies disregards registration having been carried out on paper or electronically.

## 7 Sale

7.1 As livestock hybrid females, hybrid boars, Duroc boars as well as purebred Landrace and Yorkshire females from approved breeding stock (cf. 5, and Appendix 3) may be sold.

The following categories of animals must not be sold:

- Purebred Landrace or Yorkshire boars as well as Duroc females, unless otherwise determined by the collaboration committee (in Danish: Samarbejdsudvalget), exempt are C-section boars, which according to agreement with the breeder, who has produced these boars are intended for resale (cf. Appendix 3).
- Landrace, Yorkshire and LY-/YL-females with coloured spots in hair or skin,
- animals that suffer from trembling,
- hybrid boars with melanomas.

Pigs with user code 300/350 (Appendix 1) must not be sold as approved breeding stock, but gilts from such litters may be sold as non-approved breeding stock if:

- Breeding & Genetics, DPRC, has approved this in advance,
- It has been accepted by the buyer prior to delivery
- the animals are marked according to the CHR-number of the seller's herd,
- the animals are listed on separate delivery notes with clear indication

that these are non-approved breeding stock.

- 7.2 As for hybrid boars, the average of index of parents must be at least 95 at the time of sale. As for hybrid boars based on Yorkshire and/or Landrace, the index requirements must be met by use of Yorkshire or Landrace male index (breeding index, calculated according to the breeding objective of the sire line) for Yorkshire or Landrace parent.

In connection with the delivery of gilts permission is given to sell single individual boars disregards the index requirements (so called "teaser boars"). Any sale of teaser boars must be reported to DPRC. Teaser boars must be either a LY or YL boar, and be ear-tagged with an ID and registered in the Database.

- 7.3 The Multiplier must keep a sales journal or keep delivery notes for all pigs sold as livestock; he must record the number and kind of complaints and replacements, and record names and addresses of the buyers. The sales journal must at any time be up to date and available to the advisor from Breeding & Genetics, DPRC. This information must be kept for a minimum of three years from the time of sale of any given animal.

Furthermore, the Multiplier must on a monthly basis report the sale of breeding stock. This information must be available to Breeding & Genetics five days into the new month at the latest. If the sales figures are not available by then, a sales ban may be introduced for the herd.

- 7.4 All pigs, sold as livestock, must be accompanied by an approved and correctly completed delivery note (see Appendix 2).
- 7.5 The advisor from Breeding can at any time introduce a sales ban when this is conditioned by regard to the buyer or when conditions related to breeding, sale, hygiene or health provide a basis for this.
- 7.6 The current Buyer's Declaration and acceptance of Terms of Sale must be observed and signed when selling breeding material (breeding stock and embryos), cf. Agreement on Multiplication. The Declaration must be generated by <http://partner.danavl.dk/>.

## **Appendices**

**2018**

# 1 User codes and symbols of breeding stock

## User codes of animals from litters recorded in the Database

- 100: animals that can be used in all types of herds,
- 200: animals that can be used in all types of herds, with the exception of nucleus breeding herds,
- 300: non-approved animals,
- 350: non-approved animals due to errors in parentage,
- 351-360: non-approved animals (locked by Breeding & Genetics, DPRC),
- 400: animals that can be used in nucleus management herds in which they are born,
- 800: animals that must not be sold,
- 900: rejected animals.

## Symbols of breeding stock

**A-BREEDING STOCK:** Individual or progeny tested breeding stock.

**P1-BREEDING STOCK:** Progeny of:  
A-Breeding stock

**P2- BREEDING STOCK:** Progeny:  
A-female and P1-boar, or  
P1-female and A-boar, or  
P1-female and P1-boar

## 2 Rules for completion of delivery notes

All breeding stock, sold as livestock, must be accompanied by a delivery note completed correctly.

Furthermore, a Buyer's Declaration and Acceptance of Terms of Sales must be signed and approved prior to the delivery of purebred breeding stock to Commercial herds.

This note must contain the following information as a minimum:

1. Name and CHR-no. (CHR-no. Danish herds only) of the buyer's as well as seller's herd.
2. The ID of the animal (for purebred breeding stock also index)
3. Year and date of birth of the animal.
4. ID of the sire.
5. ID of the dam.
6. The breed or breed combination of the animal.
7. For Yorkshire boars, the delivery note must indicate whether the boar is sold for production of finishers or for production of replacement females. The relevant index (sire or dam line index) must be written on the delivery note.
8. Date of delivery.
9. User code of each animal. A delivery note must contain animals with the same user code, only.
10. If the delivery concerns resale of C-section animals, this must be stated under "notes".

### 3 Use of breeding stock in multiplication

Type of breeding stock	Is in multiplication able to produce							
Landrace female, own production	LL females for own use	LL gilts for sale against payment of sales fees	LL boars for use in own herd	YL breeding stock for sale against payment of sales fees		DL females for sale against payment of sales fees	DL boars for sale against payment of sales fees	HL boars for sale against payment of sales fees
Landrace female, purchased	LL females for own use	LL gilts for sale against payment of sales fees	LL boars for use in own herd	YL breeding stock for sale against payment of sales fees		DL females for sale against payment of sales fees	DL boars for sale against payment of sales fees	HL boars for sale against payment of sales fees
Landrace boar, purchased /own production	LL females for own use	LL gilts for sale against payment of sales fees	LL boars for use in own herd	LY breeding stock for sale against payment of sales fees		LD females for sale against payment of sales fees	LH boars for sale of purchased H females against payment of sales fee.	LD boars for sale of purchased D females against payment of sales fee.
Yorkshire female, own production	YY females for own use	YY females for sale against payment of sales fees	YY boars for use in own herd	LY breeding stock for sale against payment of sales fees		DY females for sale against payment of sales fees	DY boars for sale against payment of sales fees	HY boars for sale against payment of sales fees
Yorkshire female, purchased	YY females for own use	YY females for sale against payment of sales fees	YY boars for use in own herd	LY breeding stock for sale against payment of sales fees		DY females for sale against payment of sales fees	DY boars for sale against payment of sales fees	HY boars for sale against payment of sales fees
Yorkshire boar, purchased /own production	YY females for own use	YY females for sale against payment of sales fees	YY boars for use in own herd	YD females for sale against payment of sales fees		YD boars for sale of purchased D females against payment of sales fee.	YH boars for sale of purchased H females against payment of sales fee.	
Duroc females, own production	DD boars for own use against payment of an approval fee	DD females for own use against payment of an approval fee	DD boars for sale against payment of sales fees	LD females for sale against payment of sales fees	YD females for sale against payment of sales fees			

Type of breeding stock	Is in multiplication able to produce							
Duroc females, purchased	DD females for own use against payment of an approval fee	DD boars for sale against payment of sales fees	HD boars for sale against payment of sales fees	YD boars for sale against payment of sales fees	LD boars for sale against payment of sales fees	LD females for sale against payment of sales fees	YD females for sale against payment of sales fees	DD boars for own use against payment of an approval fee
Duroc boars, purchased, own production	DD females for own use against payment of an approval fee	DD boars for sale against payment of sales fees	DY females for sale against payment of sales fees	DL females for sale against payment of sales fees	DH boars for sale of purchased H females against payment of sales fee.	DY boars for sale of purchased H females against payment of sales fee.	DL boars for sale of purchased H females against payment of sales fee.	DD boars for own use against payment of an approval fee
Hampshire females, purchased	DH boars for sale against payment of sales fees	YH boars for sale against payment of sales fees	LH boars for sale against payment of sales fees					
Hampshire semen, purchased	HD boars for sale of purchased females against payment of sales fee	HY boars for sale of purchased females against payment of sales fee	HL boars for sale of purchased females against payment of sales fee					



## 5 User payment

12.1 The following fees are charged annually to the Multiplier:

- |  |           |
|--|-----------|
| a) Basic registration fee per herd number:                           | DKK 4,870 |
| b) Inspection and registration fee per sow (reported electronically) | DKK 36,50 |

The average amount of purebred sows reported to the Database in the first (January) quarter forms the basis for fees charged in which calculation is based on the amount of sows.

12.2 For assistance to recordings etc. DKK 562 per hour is charged.

For advisory service DKK 845 per hour is charged.

A fee of DKK 812 is charged for the introduction of a sales ban due to delayed reporting, payment etc.

12.3 IT fees are as follows:

IT advisory service (telephone/visit):	DKK 225 per quarter commenced.
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IT programmes are sold as per account rendered.

12.4 In the event that the Multiplier requires extended quarantine in connection with herd inspections, the below amounts will be charged:

	<b>Conv.</b>
1. First visit	DKK 1,450
2. 18 hours	DKK 2,029
3. 24 hours	DKK 2,610
4. 48 hours	DKK 4,057

12.5 Travel fees and compensation are charged for additional transport in case of a herd being situated further than 200 km from the closest breeding office.

12.6 A fee of DKK 276 is charged for every litter that has been reported too late, cf. 6.2.