



An Aviagen Brand

Arbor Acres plus

Management Supplement

2016

Fast Feathering

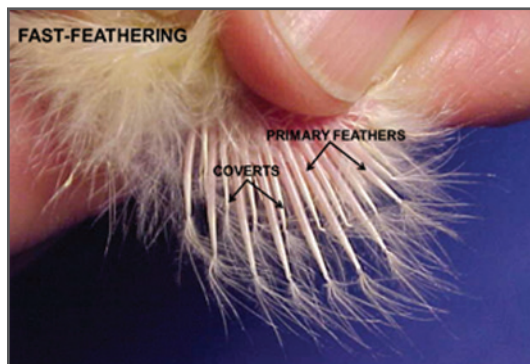


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Introduction

The Arbor Acres® Plus is a fast-feathering Arbor Acres breeder that has been selected to have longer upper layer feathers (primaries) and shorter lower layer feathers (coverts) on the outer wing (**Figure 1**). This distinction means that parent stock chicks are feather sexable and their broiler progeny, although not feather sexable, will have males and females feathering at the same rate as each other. Smaller egg size, better hatchability, better shell quality, and potentially increased chicks per hen housed are other advantages of the Arbor Acres Plus.

Figure 1: Example of a fast-feathering chick with primary feathers longer than covert feathers.



The purpose of this supplement is to highlight specific areas where management advice may differ from that of the Arbor Acres Plus S, a slow-feathering breeder. It should be used in conjunction with, and as a supplement to, the Arbor Acres Parent Stock and Broiler Management Handbooks. The recommendations in this document cover parent stock, hatchery, and broiler management.

The information presented is based on data from internal trials, field studies, practical knowledge, experience and expertise of Aviagen® Service Teams from around the world.

Parent Stock Management

Basic management of Arbor Acres Plus parent stock is the same as that of Arbor Acres Plus S parent stock. Further general information on how to manage the Arbor Acres Plus breeder can be found in the Arbor Acres Parent Stock Management Handbook.

Brooding

Good brooding practices are essential to giving chicks a good start. Arbor Acres Plus chicks may be slightly smaller in size than Arbor Acres Plus S chicks and therefore a slightly higher temperature (+1-2°C / 2-4°F) during the brooding period may be required. However, chick behavior should be monitored at all times and environmental conditions adjusted accordingly in response to the behavior seen.

Body-Weight Profiles

As the birds grow, it is necessary for them to follow the correct body-weight profile so that they can grow and develop in such a way that optimizes reproductive performance in lay.

The current advice is that the Arbor Acres Plus should be reared to the same body-weight profile as the Arbor Acres Plus S. Routine weighing should be used to closely monitor body weight throughout the life of the flock to ensure birds remain on target and to help managers recognize and respond to deviations in body weight promptly.

Managing Small Egg Production

The Arbor Acres Plus may have a slightly smaller egg size and, dependent upon the local nutrition and environmental influences, there are different management strategies than can be adopted to manage egg size.

In some regions, providing a small increase in body weight (no more than 75 g [0.17 lb] above target) coming into lay has been found to be beneficial in reducing the number of small eggs at onset of production. Such a management strategy needs to be carefully monitored to avoid birds becoming heavy at onset of lay.

Because of the potential for smaller eggs, there may be some benefit in delaying light stimulation of the Arbor Acres Plus by 7 days to reduce the number of small eggs at the onset of production. If such a management strategy is adopted, feeding into lay must be modified to account for this.

Lighting Programs

The basic principles for lighting of the Arbor Acres Plus are the same as those of the Arbor Acres Plus S. The recommendations for lighting programs can be found in the Arbor Acres Parent Stock Management Handbook.

Laying Period

Feeding into Production

If delaying light stimulation to reduce smaller egg size, feeding into lay will be 7-10 days later with the Arbor Acres Plus when compared to the Arbor Acres Plus S. Where differing management strategies are employed, feeding into lay should also be changed appropriately.

Production and Hatchability

The Arbor Acres Plus has approximately a 1% advantage in hatchability over the Arbor Acres Plus S.

Hatchery

Arbor Acres Plus chicks will require the same amount of hatch time as Arbor Acres Plus S chicks. However, eggs will lose less moisture during incubation and humidity levels need to be reduced slightly to ensure a good hatch. Egg weight loss should be monitored closely to be sure that humidity levels are correct. For more information, see *Hatchery How To #1 – How To Measure Water Loss*.

As with the Arbor Acres Plus S, chick yield at take-off should be around 67% for the Arbor Acres Plus. Chicks that are left too long in the incubator can become dehydrated and be difficult to start when placed on the farm. To calculate chick yield at take-off, the following formula from *Hatchery How To #2 – How to Measure Chick Yield* can be applied:

$$\frac{\text{Average Chick Weight}}{\text{Average Egg Weight at Set}} \times 100$$

Broilers

Good brooding practices are essential to giving chicks a good start. Broiler chick size can be smaller in the Arbor Acres Plus and therefore a slightly higher temperature during the brooding period (+1-2°C / 2-4°F) may be required for the Arbor Acres Plus compared to the Arbor Acres Plus S broiler chick. Chick behavior should be monitored at all times and environmental conditions adjusted accordingly. All other general management practices for the Arbor Acres Plus broiler are the same as for the Arbor Acres Plus S and can be found in the Arbor Acres Broiler Management Handbook.

Because of the fast feathering nature of the Arbor Acres Plus broiler, areas that process birds at less than 30 days of age may potentially see an advantage at the processing plant due to fewer skin lesions.

Conclusions

Although the basic management advice for the Arbor Acres Plus is the same as that of the Arbor Acres Plus S, some key considerations include:

- Parent stock and broiler chicks may be smaller and may need a slightly higher environmental temperature at placement (+1-2°C / 2-4°F).
- Parent stock body weights should be monitored closely throughout the life of the flock to ensure birds remain on target body-weight profile.
- Providing a small increase in body weight (no more than 75 g [0.17 lb] above target) coming into lay or delaying light stimulation by 7 days may be beneficial in reducing the number of small eggs.
- Humidity levels during incubation may need to be reduced slightly.

For further information, please contact your local Aviagen representative.

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