Introduction
The use of heat synchronization by oral manual administration of Altrenogest is a well documented management tool to group the estrus presentation of batches of gilts. However, in large farms, manually administrating the drug for 18 consecutive days, in order to group a batch of gilts, is labor demanding. This paper evaluates the result and practicality of an automatically controlled dosing Altrenogest system, associated to a modified Electronic Sow Feeding System (ESFS) used during the training fase of the gilts, in commercial pig farms in Spain.

Materials and Methods
Standard oral Altrenogest Spray 540 ml (Altresyn® CEVA) were used for the dosing. Compident® Junior Electronic Sow Feeding Stations (ESFS) (Schauer, Agrotronic GmbH.) are designed for gilt individual feeding in the training fase prior to the service and group gestation. Gilt feeding training usually begins when gilts surpass 100 kg of Body Weight and usually lasts 4 to 6 weeks. Feed training takes place until they are moved to crates previous to service. During this training faze, first heat was detected (non served) after which, the Altrenogest treatment was implemented, as a means to induced heat grouping.

The ESFS was modified to automatically administer the 5 ml dose of Altrenogest into the sows feed trough. The administration system was programmed for a daily dosing of 5 ml. for 18 consecutive days, to all gilts of the group previously selected for service. A double can system was adjusted to avoid running out of product during treatment. The ESFS was programmed to switch automatically to the second can, once the first can is empty. Staff was trained to manage the can replacement. All gilts that came on heat after the treatment were moved to individual crates to be served on the next heat. This system was used to start up 3 large farms in Catalonia, Spain, between January 2011 and August 2013. Twenty consecutive gilt batches on each farm were successfully dosed. A total of 11,340 gilts were synchronized in weekly groups to come on heat.

Results
Of the 11,340, gilts treated, 204 gilts were culled before service, for various reasons (1.79%).
10,445 gilts (93.79%) of gilts automatically fed Altrenogest came into estrus during the 21 day heat check period after the withdrawal of Altrenogest. All of them had come on heat 5 days after the withdrawal of Altrenogest. Average conception rate of all 3 farms at 28 to 35 days (Ecography), for the gilts was 89.97%.

Conclusions and Discussion
The proportions of “in heat” gilts that received Altrenogest automatically, was not significantly different from those reported for manual dosing of (94%).

In a few cases, gilts had to be manually dosed for safety; frequently at the end of the can, or in gilts that did not eat for one or two days. Although the number of cases was not registered, staff reported them as to be of very low incidence.

Although automatic dosing of Altrenogest requires daily checks, it was considered by the staff in charge as; a comfortable, reliable, easy to manage tool that also reduced human error at dosing.

An additional advantage observed was that it reinforced sow training, facilitating management of sows in all other sections of the farm.

The automatic Altrenogest dosing was implemented in large Site 1 farms that are run by staff in a proportion of 230 to 250 sows per person. Automatic dosing resulted in a very valuable management tool under these conditions.

The veterinarian practitioners involved in the start up of these farms considers this technique very useful for the efficient introduction of gilts to new large scale farm with ESFS.

Acknowledgments
Albesa-Ramadera farm staff. Lerida, Spain.

References