Aviagen™ Turkeys

Technical Bulletin

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Adjusting Feed Conversion Ratio

The question is often asked "why do we adjust feed conversion to a specified bird weight?" Adjustments are made to level the playing field, to make comparisons "apples to apples".

If a flock grows to a heavier weight, it is going to have a higher Feed Conversion Ratio (FCR). If you want to make a FCR comparison, you need to adjust the number to estimate what the FCR would have been at the same weight.

FEED CONVERSION

We use four different adjustments for the hen and tom bird weights. The aim is to adjust to a weight that is common practice in the industry and to be consistent over time. The standard weights that we use are as follows:

- Heavy Toms 43 lbs /19.5 kgs
- Light Hens 15 lbs / 6.8 kgs
- Medium Hens 18 lbs / 8.2 kgs
- Heavy Hens 23 lbs /10.4 kgs

Doing the math for adjustments is relatively easy; the hard part is to determine what factor to use. The factor is how many points of feed conversion to adjust for each pound of weight difference. These factors can range .020 points to .060 points depending on the feed type and the bird weight group.

Companies that routinely compare Adjusted FCR will determine what factors are appropriate for their operations. We work with a range of different companies, feed types and bird weights and from our experience, the following adjustment factors are appropriate

- Hens .040 points
- Toms .040 points

DOING THE MATH

To adjust the feed conversion you find the difference between the actual average flock weight and the adjusted weight. You then multiply the difference by the factor and add that number to the actual FCR, see Figure 1.

Figure 1. Formula to Adjust FCR to a Common Weight

Adj. Weight − Act. Weight ✕ Factor + Act. FCR = Adj. FCR

- Adj. Weight – the common weight to adjust the FCR
- Act. Weight – the average actual weight of the flock
- Factor – the number of points to adjust the FCR per pound (kg) difference in weight
- Act. FCR – the actual FCR achieved by the flock
- Adj. FCR – the FCR adjusted to the common weight

WHICH FLOCK HAS THE BETTER FCR?

Flock 1 has an average weight of 44.51 lbs with a 2.64 FCR. Flock 2 has an average weight of 42.76 lbs with a 2.60 FCR. So on an absolute basis, Flock 2 has a lower FCR. However, since Flock 1 is heavier when both flocks are adjusted to 43 lbs it has the better result, see Figure 2.

Figure 2. Example - Adjusting Tom Flock FCR to a Common Weight

	Adj. Weight		Act. Weight		Lbs to Adj.		Factor		Points to Adjust		Actual FCR		Adjusted FCR
Flock 1	43.00	−	44.51	=	-1.51	✕	0.04	=	-0.06	+	2.64	=	2.58
Flock 2	43.00	−	42.76	=	0.24	✕	0.04	=	0.01	+	2.60	=	2.61

CONCLUSION

Sometimes using adjustments is the only way to make an accurate comparison. As an industry we use adjustments in other parts of our business. In breeders we adjust to calculate eggs per hen at a standard week of lay (26 weeks). Also in breeders we adjust capitalized hen cost per egg using a standard number of eggs per hen (90 eggs).

In the hatchery we adjust to 100% utilization to compare labor costs. And finally in the processing plant, similar bird types are adjusted to an average WOG weight for analyzing labor costs and a standard Birds Per Man Hour adjustment is used when looking at line efficiencies.

Below is a worksheet to help you make the adjustment for FCR, Figure 3. Caution: be careful not to adjust a number that is already adjusted. This may sound strange, but it happens all of the time.

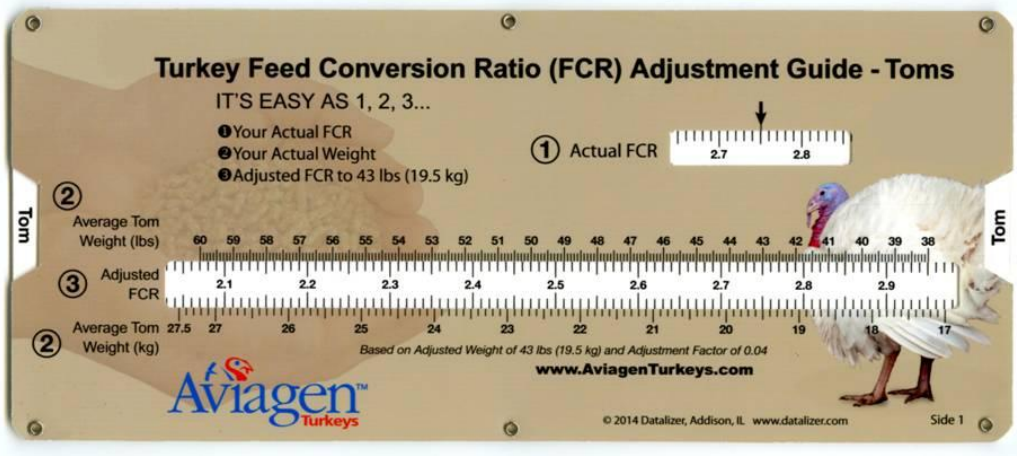
Aviagen Turkeys has also developed a tool to calculate Adjusted FCR, Figure 4. This adjustment calculator is available from your Aviagen Turkeys' representative.

We hope you find this useful and don't hesitate to contact us with questions.

Figure 3. Feed Conversion Ratio Adjustment Worksheet

Flock	Adjusted Weight		Actual Weight		Lbs / kgs to Adjust		Factor		Points to Adjust		Actual FCR		Adjusted FCR
		-		=		x		=		+		=	
		-		=		x		=		+		=	

Figure 4. Feed Conversion Ratio Adjustment Calculator



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