



Chester 2026

**Feed Form Matters : Feed Survey Insights
and Experimental Comparison of Mash and
Pelleted Diets**

THE EFFECT OF TYPE OF PELLETING ON GROWTH AND METABOLISABLE ENERGY FROM TURKEY RATIONS

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Effect of Diet and Population Density on Male Turkeys
Under Various Environmental Conditions.
2. Body Composition and Meat Yield¹

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Effect of Diet and Population Density on Male Turkeys Under Various Environmental Conditions. 1. Turkey Growth and Health Performance¹

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Feed Physical Quality

Marcus Kenny, Company Nutritionist Aviagen Turkeys Ltd ©

Effect of pellet quality and biochar litter amendment on male turkey performance

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The Response of Broiler Chickens and Turkey Poults to Steam-Pelleted Diets Supplemented with Fat or Carbohydrates

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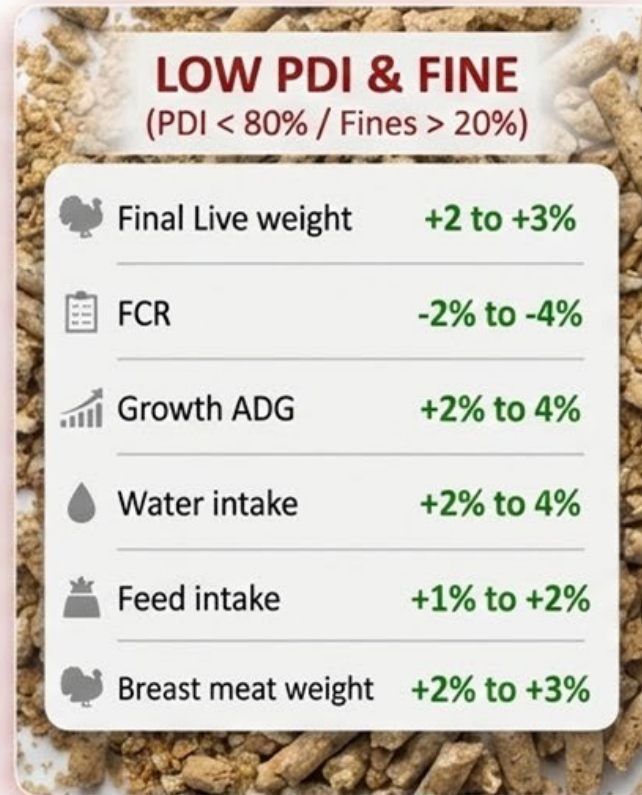
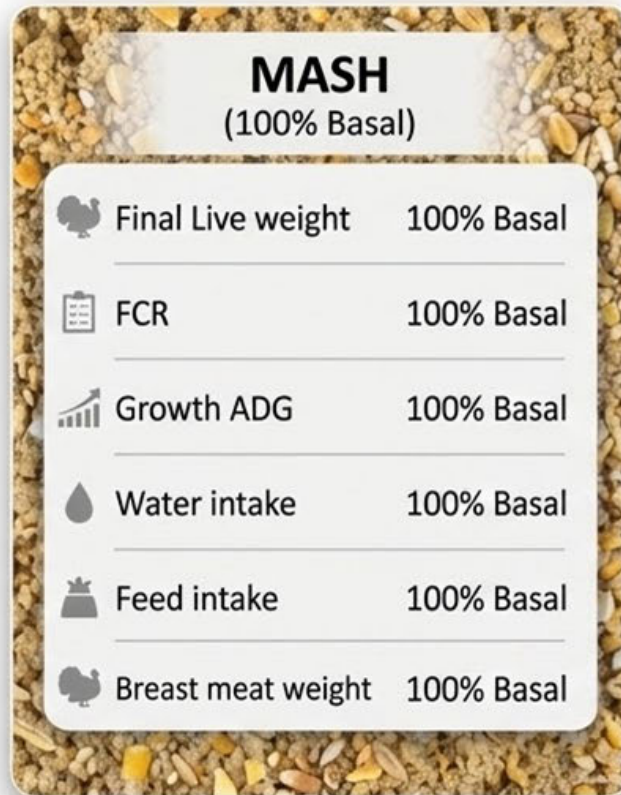
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Effects of feed form and feed particle size on growth performance, carcass characteristics and digestive tract development of broilers

[Mingbin Lv](#), [Lei Yan](#)  , [Zhengguo Wang](#), [Sha An](#), [Miaomiao Wu](#), [Zunzhou Lv](#)

Feed forms matters

Context

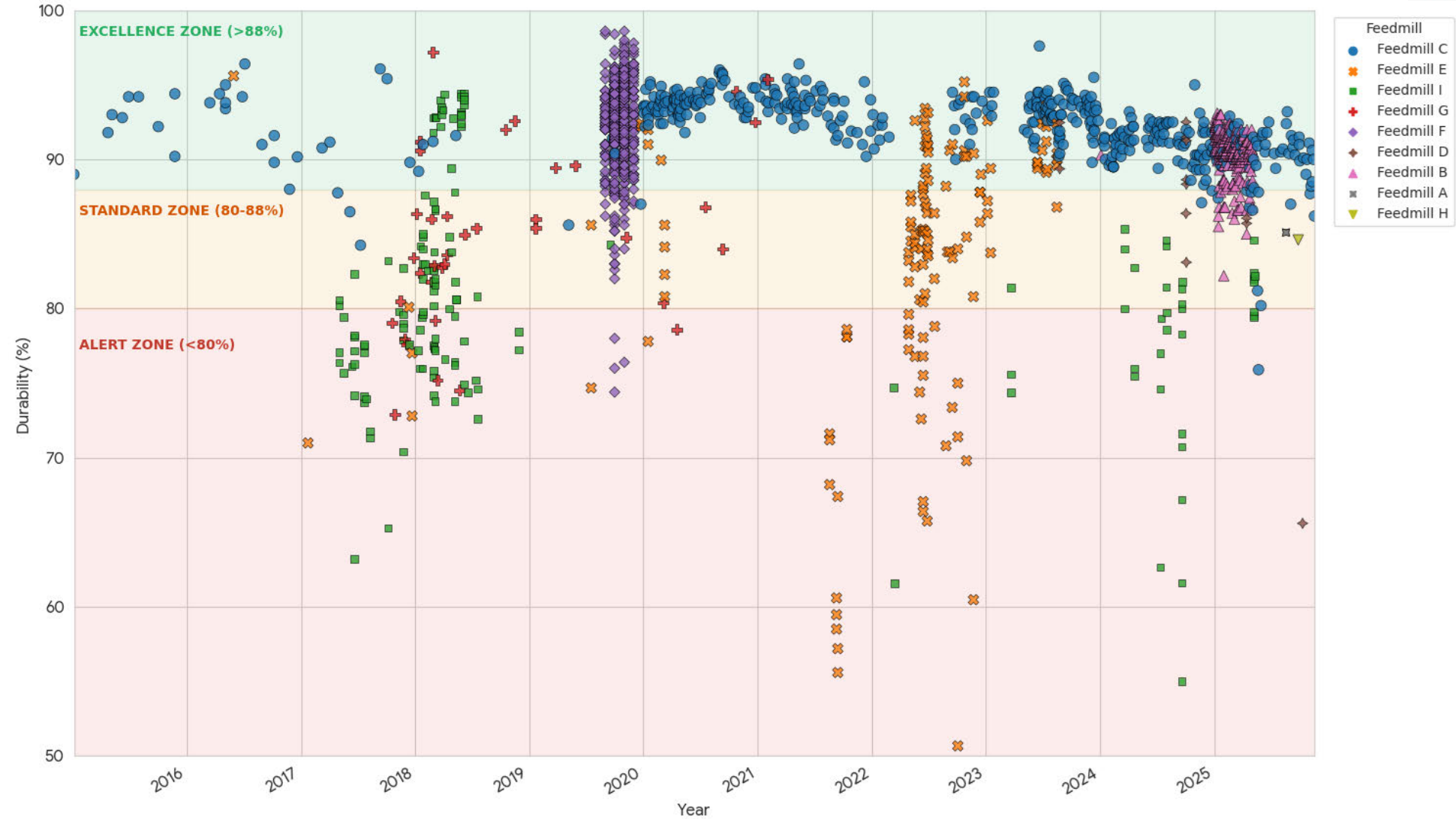


Source: bibliographic synthesis from 1980 to 2025 - percentage represent relative deviation from Mash form

1. **An industrial state of play:** What is the reality of pelleting quality in France and internationally?
2. **Experimental validation:** What is the real impact of a durability defect (fines) or a mash presentation on the growth physiology of the turkey?

10 years of Labs feed analysis

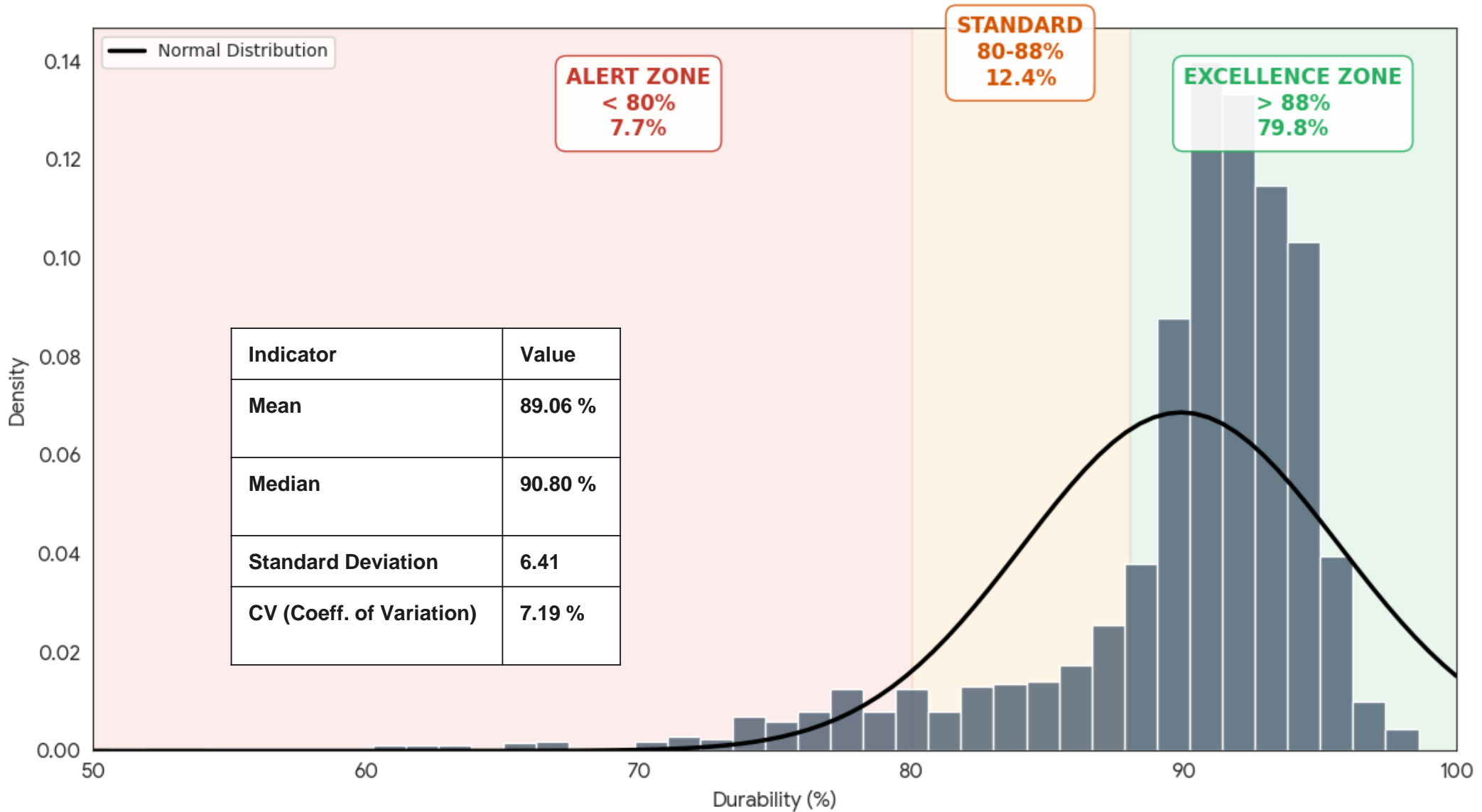
Chronological Evolution of Durability by Feedmill with Performance Zones



- Over 1500 samples in 10 years
- Heterogeneous results

10 years of Labs feed analysis

Global Distribution of Durability with Performance Zones



➤ Less than 10% are lower than 80% of PDI

Long story short...

- Started in 2020 with the broiler chicken



11 Feedmills
273 samples

2020



2021

7 Feedmills
156 samples



11 Feedmills
202 samples

2022



2023/24

14 Feedmills
158 samples



More than 10
Feedmills
Not finish

2025



2026

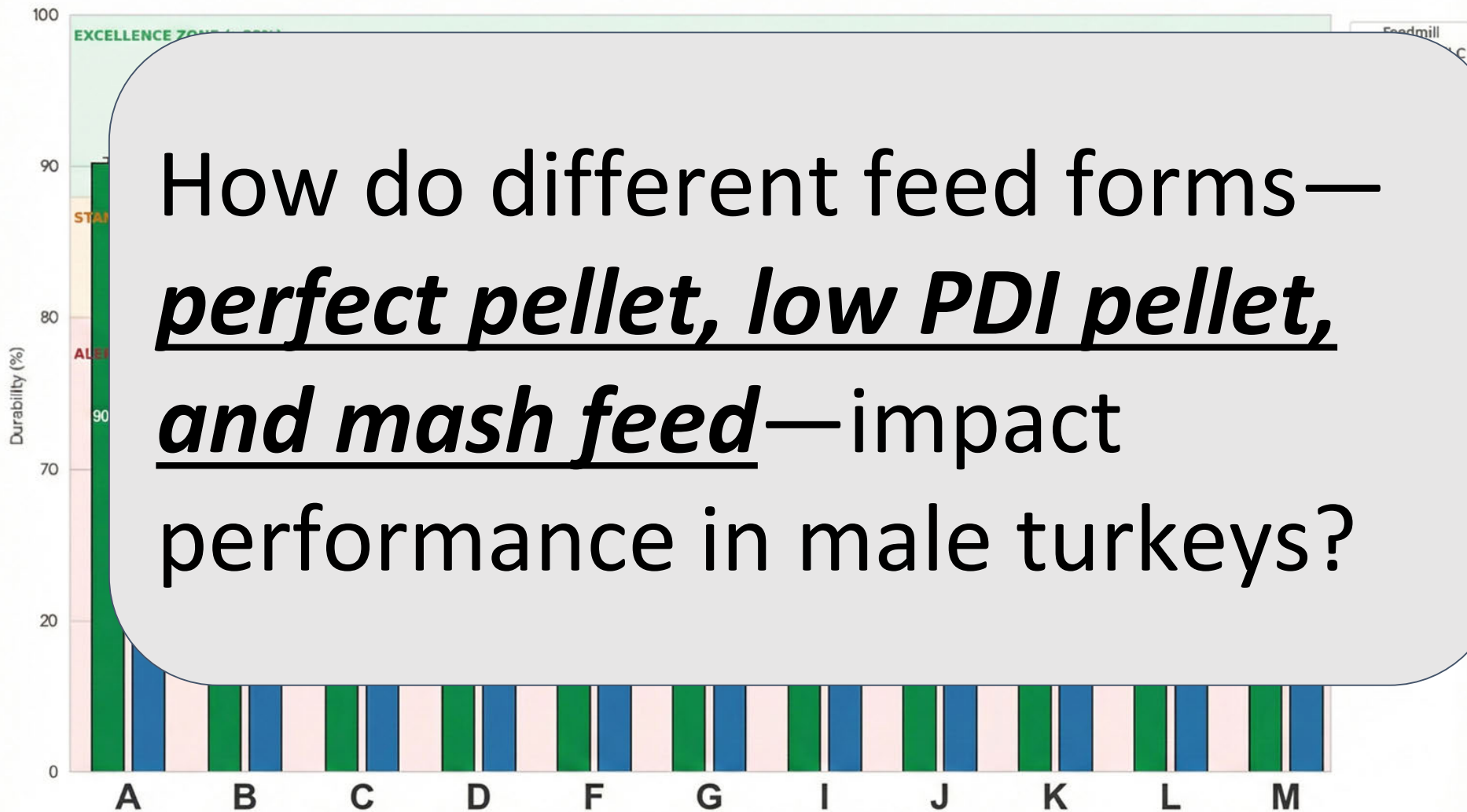
We will see!



Average PDI

Grower Pellet

Finisher Pellet



Let's Turkey Talk about feed!

ROCKY PELBOA

KID CRUMBLE

SUGAR RAY MASH


















LET'S TURKEY TALK ABOUT FEED

Directed by ALFRED HITCHCOCK Produced by GOBBLE STUDIOS Music by HANS ZIM-BIRO Screenplay by FOWL PLAY WRITERS
Director of Photography FEATHER LIGHT Edited by DEAK & CLAW CUTS
A GOBBLE STUDIOS PRODUCTION

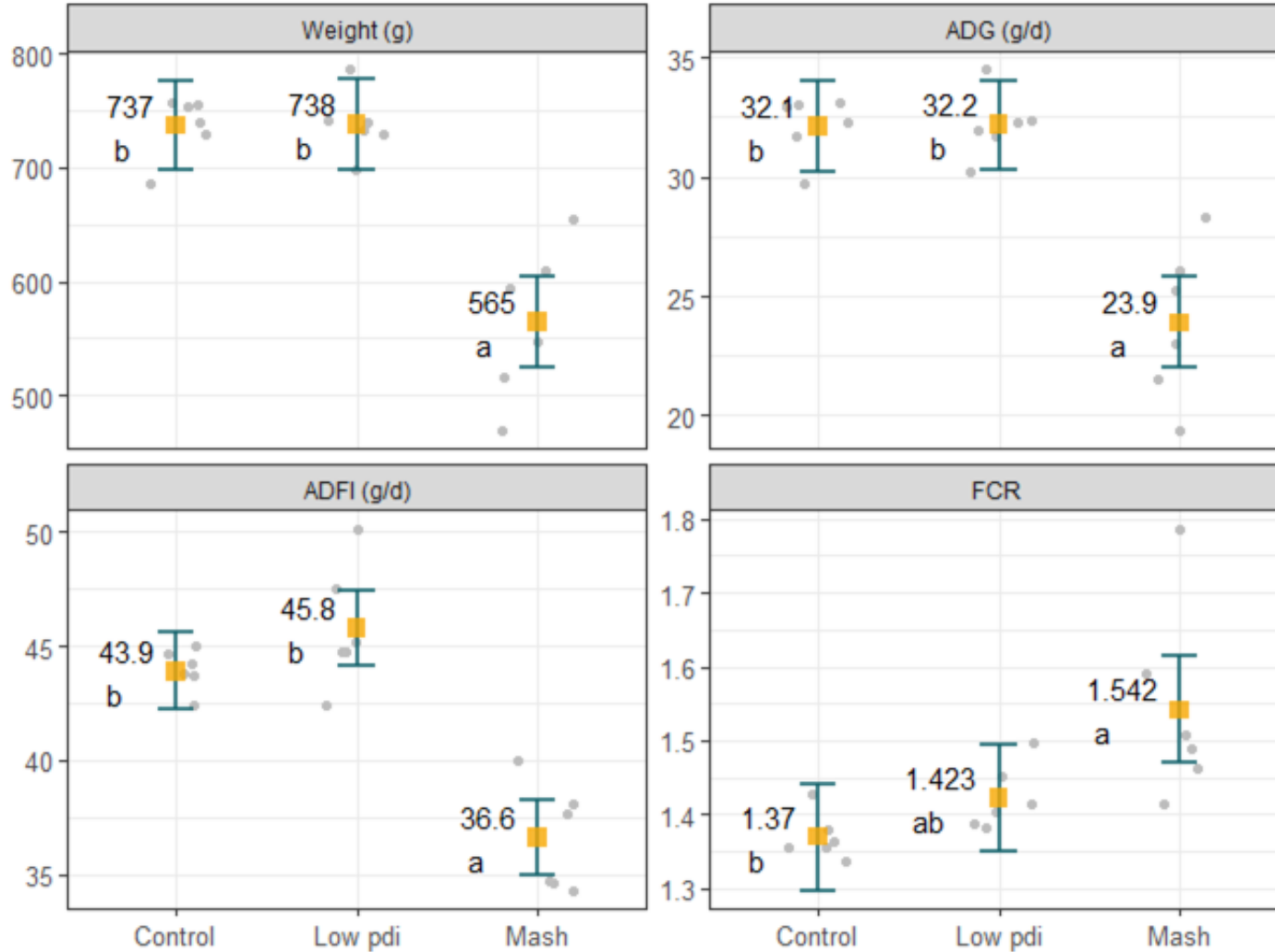
Protocol

Objectives: To compare three feed presentations on the zootechnical performance of Aviagen Premium turkeys, over a 112-day trial period

Groups: 3 groups × 6 pens of 9 turkeys toms

	 1 Control	 2 Low pdi	 3 Mash 
0-21 days period 	 Sieved crumbles	 Unsieved crumbles	Mash
21-56 days period 	 Short cut pellets Durability 85-92	 Short cut pellets Durability 65-75	Mash
56-112 days period 	 Pellets Durability 88-95	 Pellets Durability 70-80	Mash
Repeats 	3	3	3
Turkey number 	30	30	30

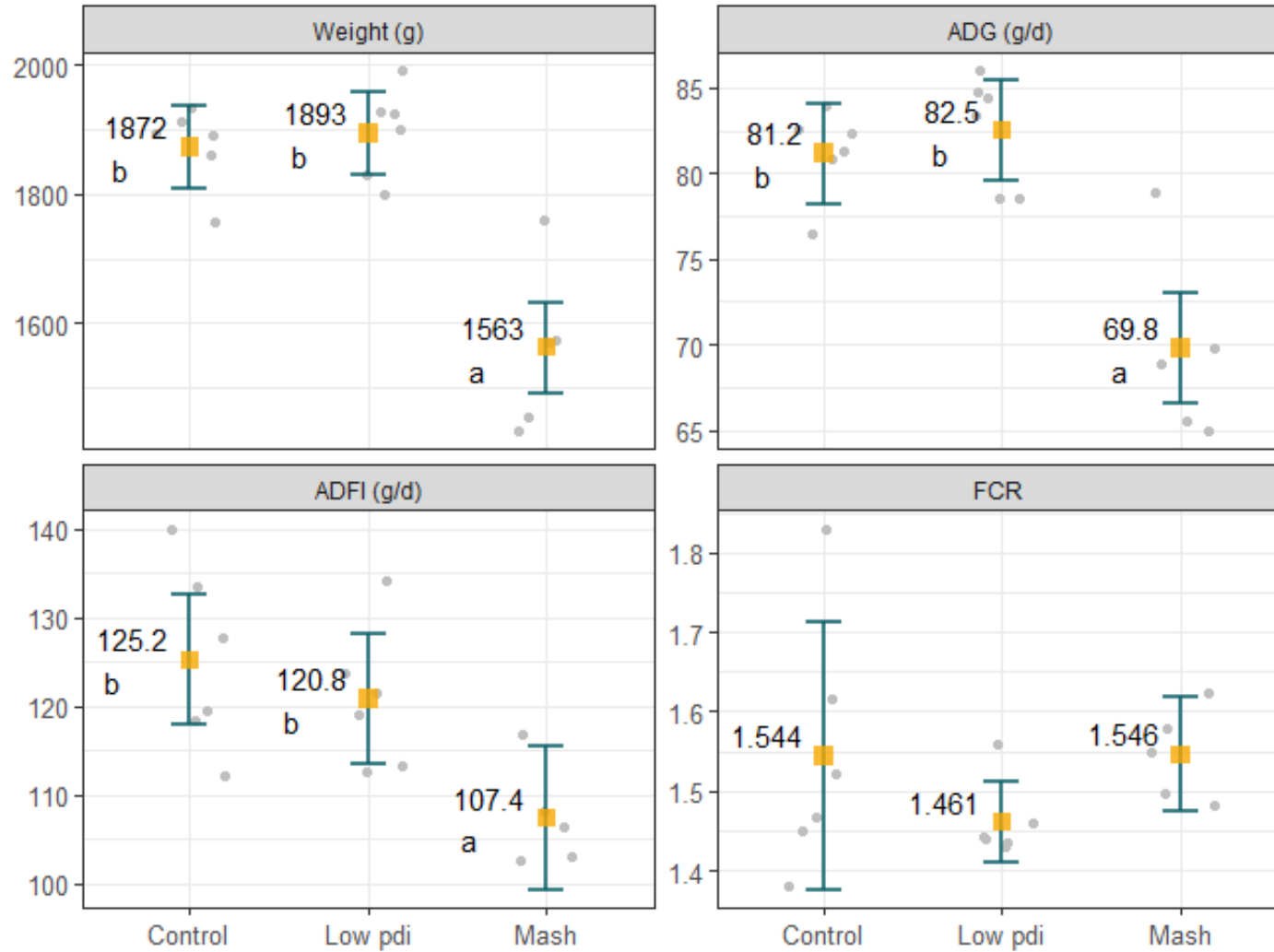
From 0 to 21 days



	Control	Low PDI	Mash
D50 - μm	1753	1567	1098

- During the 0 to 21 day period, the average daily gain (ADG) is lower for the Mash group.
- During the 0 to 21 day period, the daily feed consumption (ADFI) is lower for the Mash group.
- Low D50 for the Mash feed

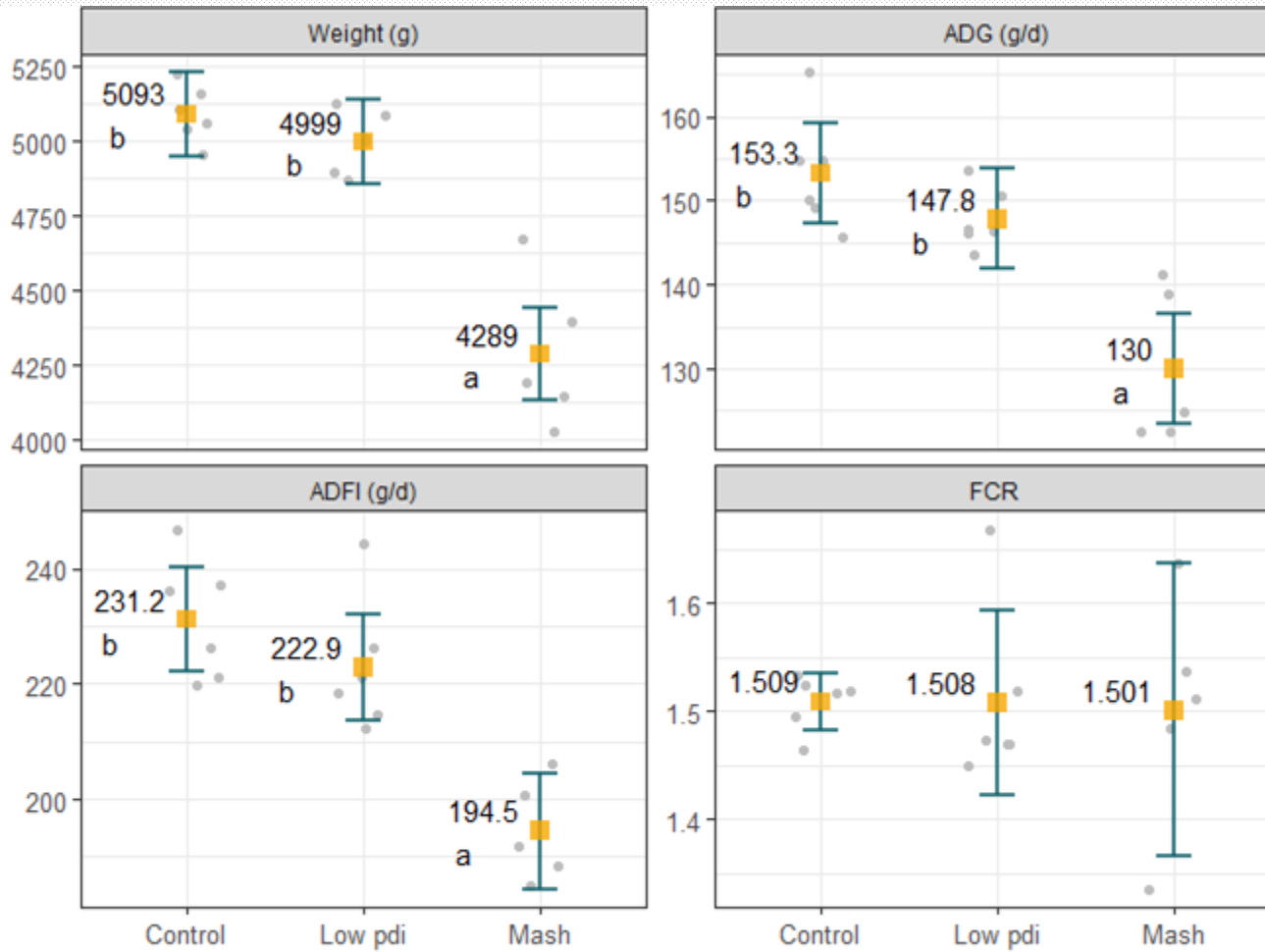
From 21 to 35 days



	Control	Low PDI	Mash
PDI - %	90,4	80,2	
D50 - μm			1328

- 21-35 days
- ADG and ADFI are lower in the Mash group

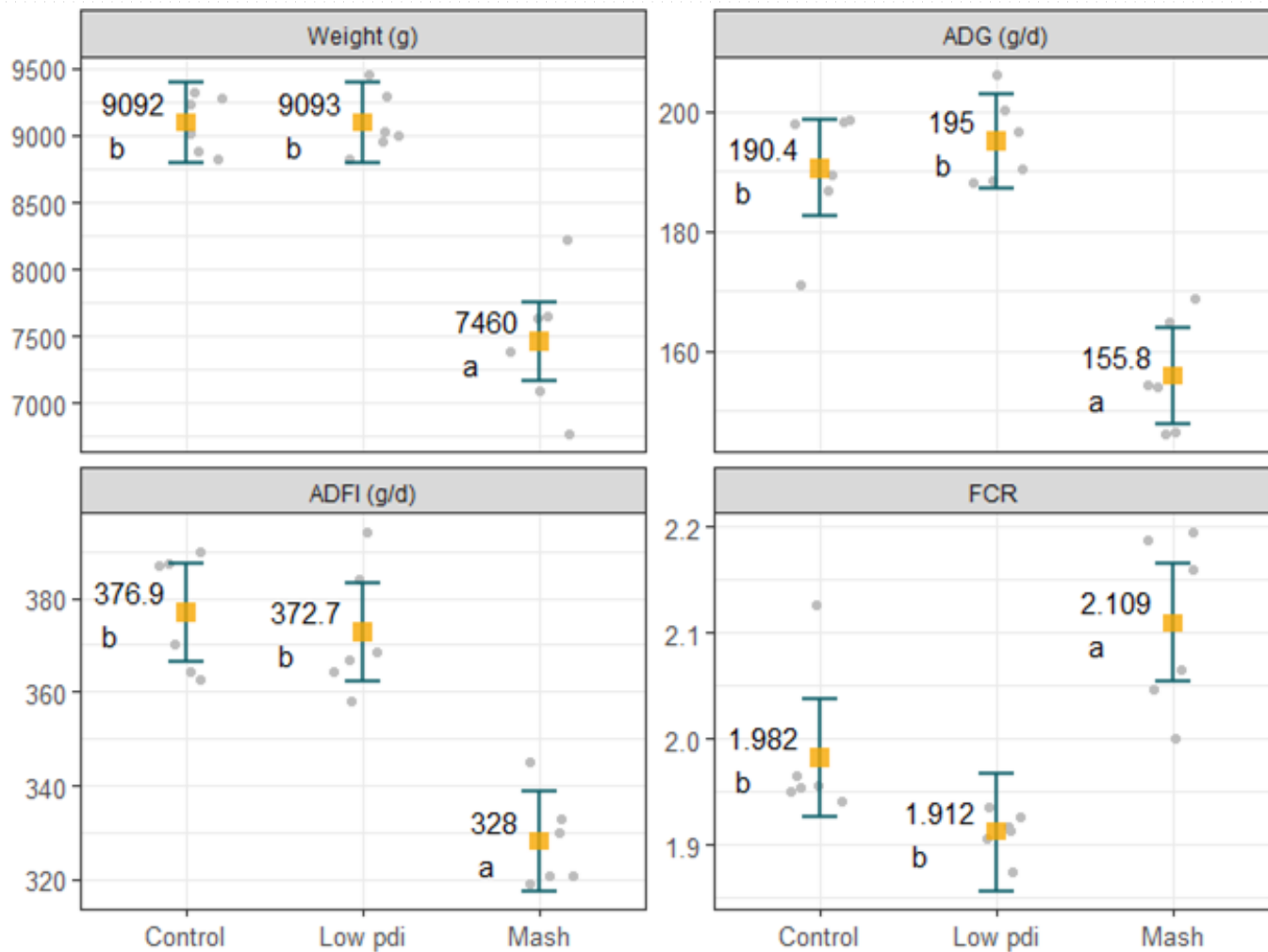
From 35 to 56 days



	Control	Low PDI	Mash
PDI - %	90,6	81,2	
D50 - μm			1320

- 35-56 days
- ADG and ADFI are lower in the Mash group

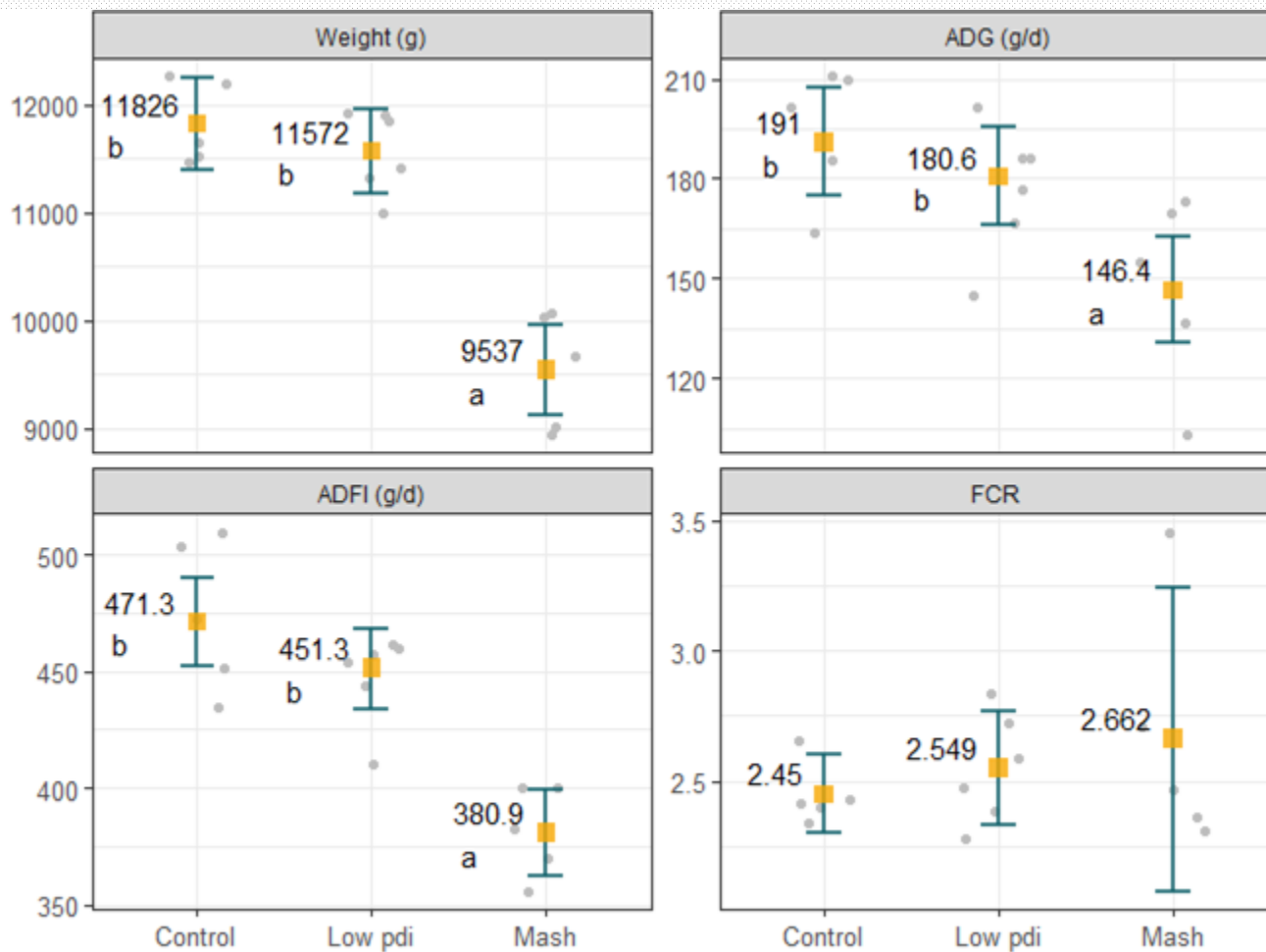
From 56 to 77 days



	Control	Low PDI	Mash
PDI - %	90,0	85,2	
D50 - μm			1329

- 56-77 days
- ADG and ADFI are lower in the Mash group

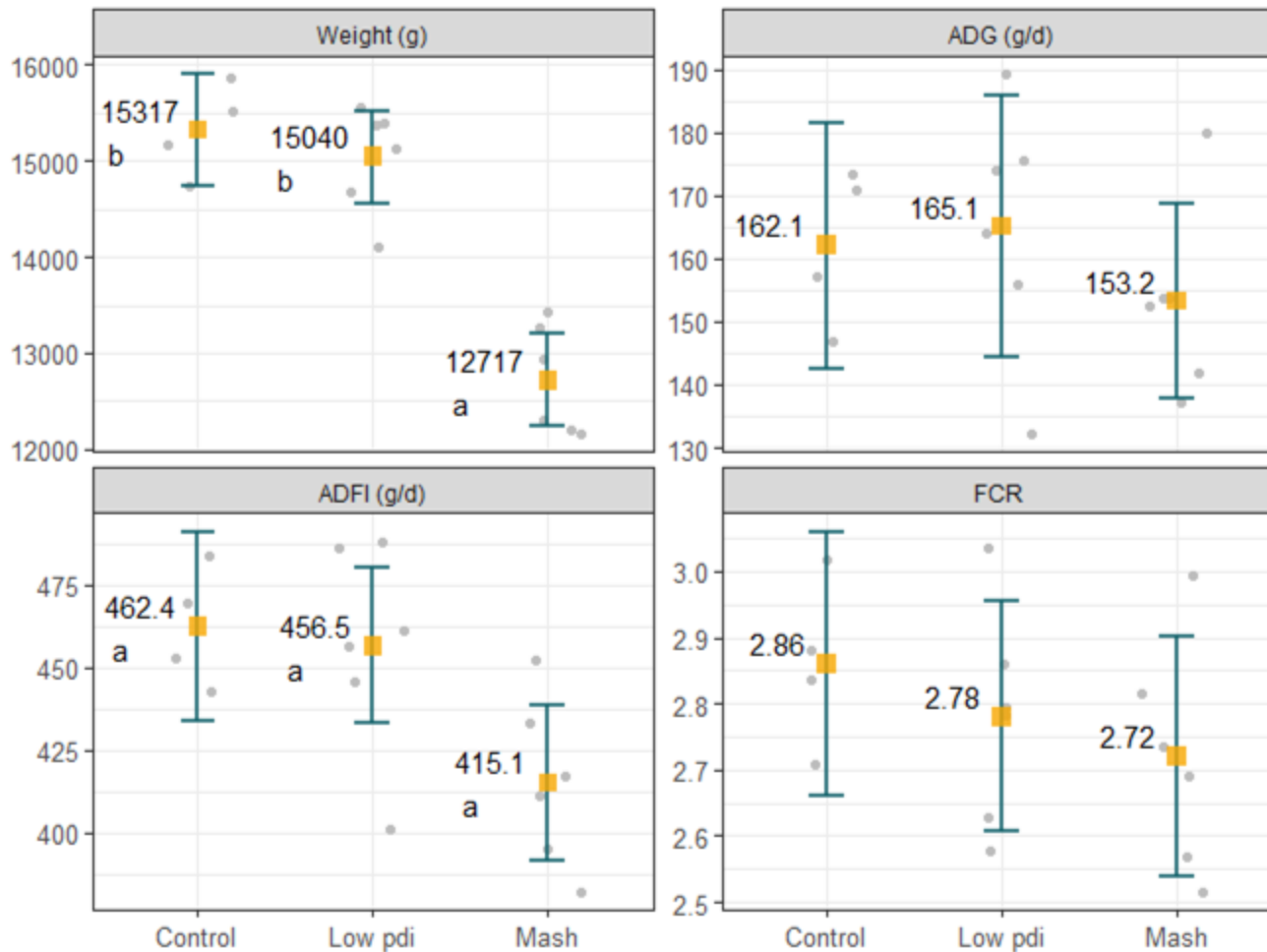
From 77 to 91 days



	Control	Low PDI	Mash
PDI - %	92,6	77,6	
D50 - μm			1277

- 77-91 days: Mash group shows lower ADG and ADFI. The degraded presentation group notably worsened, creating a significant gap with Control (15 points durability difference).

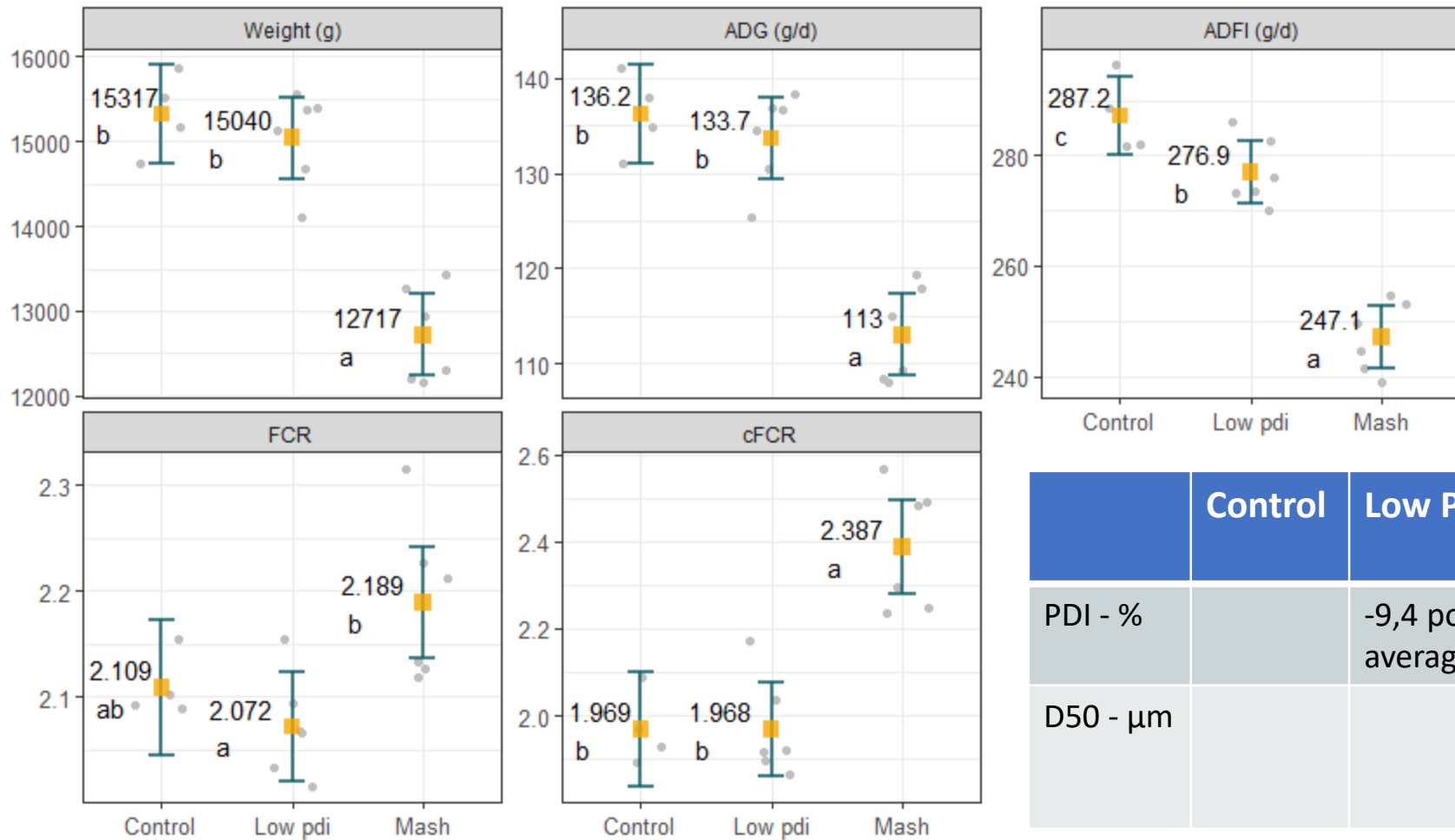
From 91 to 112 days



	Control	Low PDI	Mash
PDI - %	85	77,2	
D50 - μm			1705

- 91-112 days
- Lower ADFI but a catch-up in ADG
 - Possible effect of a coarser presentation?
- D50 = 1700 vs. approximately 1300 previously

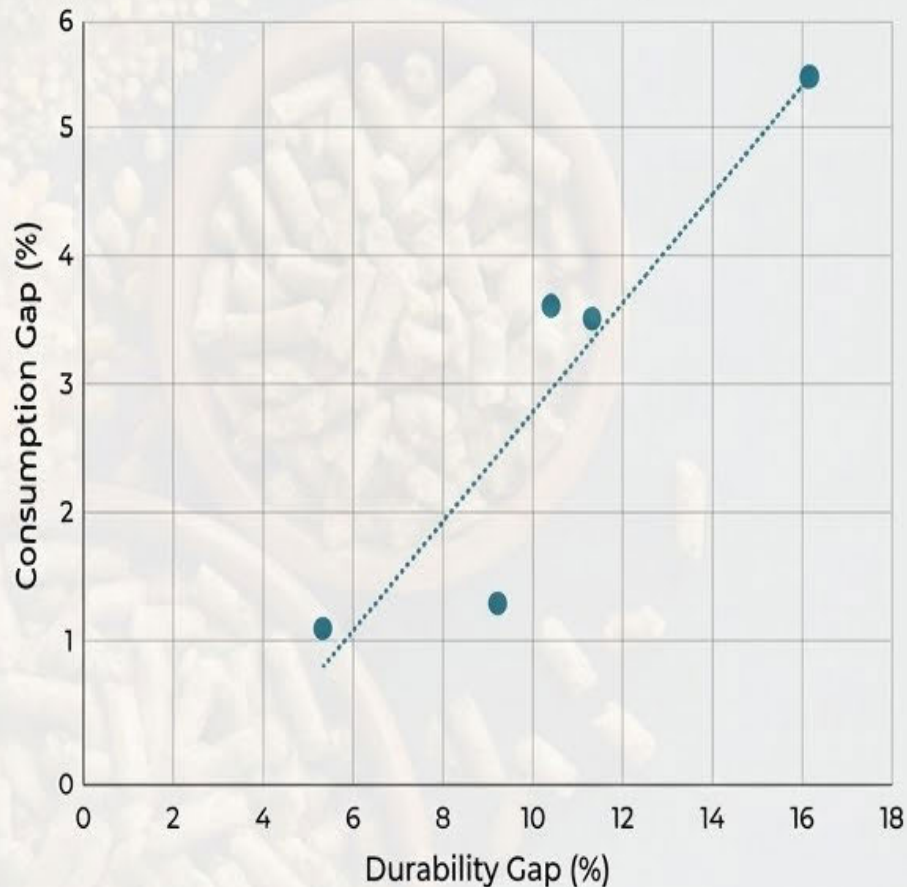
From 0 to 112 days Overall



	Control	Low PDI	Mash
PDI - %		-9,4 points in average	
D50 - μm			Average = 1342 Std-dev.=198

- Hierarchy between the groups;
- Control > Low PDI > Mash

Correlation: Feed Durability vs. Consumption Gap



Interpretations: The Impact of Feed Durability on Turkey Performance



- A mere **10%** decrease in feed durability can lead to a **4.2%** drop in feed consumption.



- Specifically, reducing durability from **90%** to **81%** lowers daily consumption from **450g** to **431g**.

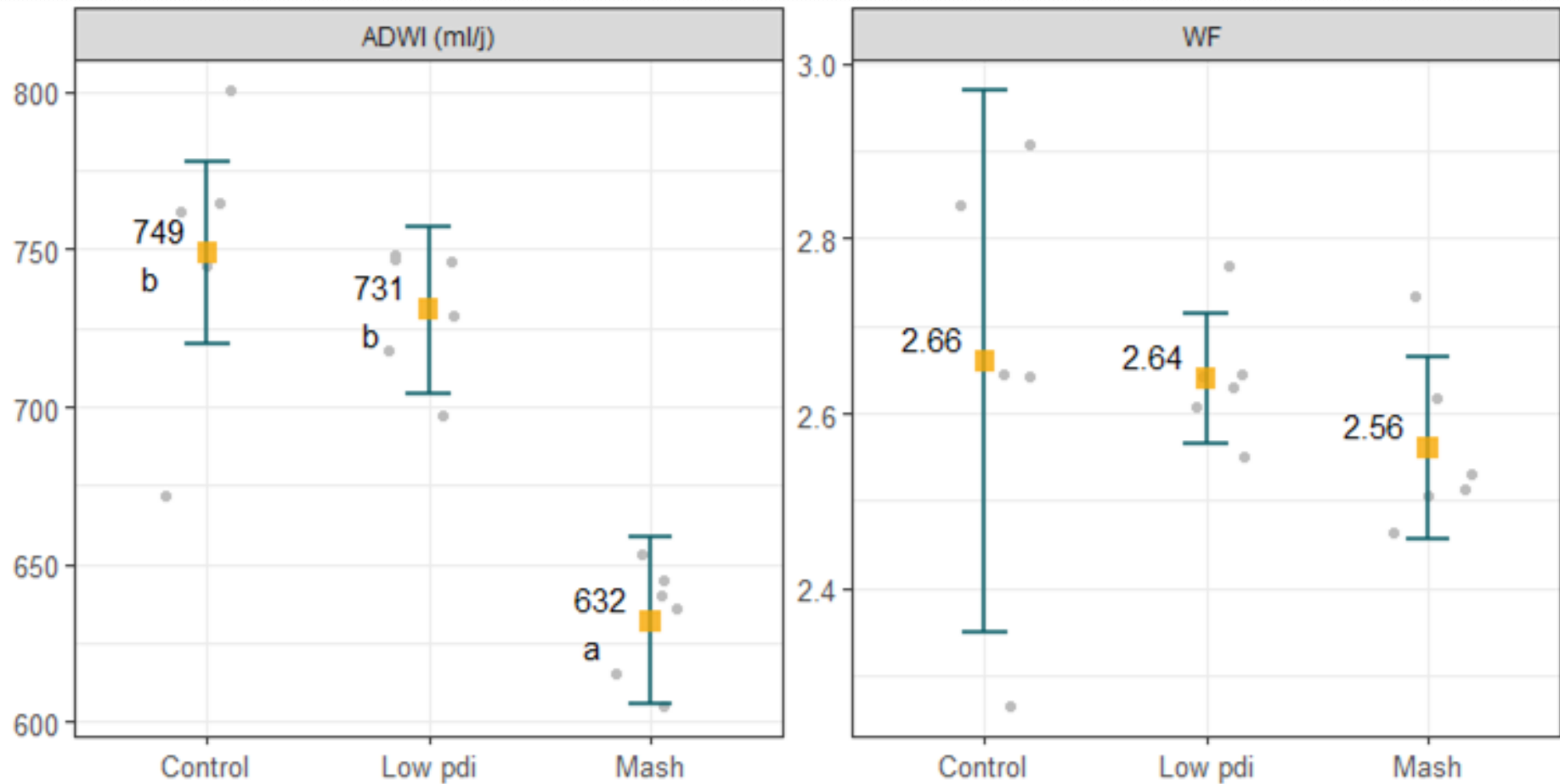


- This reduced consumption is associated with a **3% decline** in Average Daily Gain (ADG).



- For a typical 20kgs toms, this ADG reduction equates to a potential weight loss of **600g**.

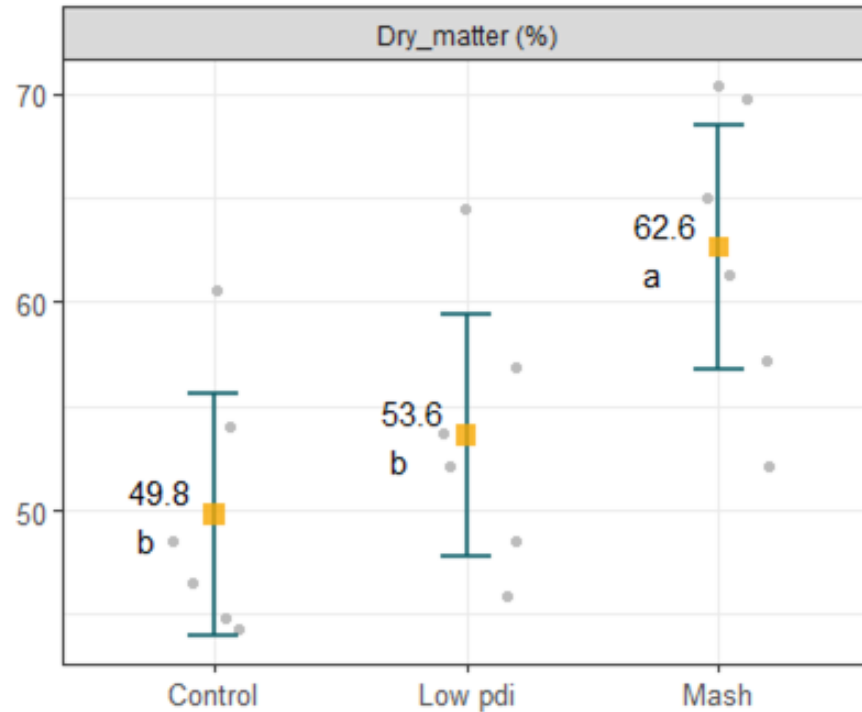
Water consumption



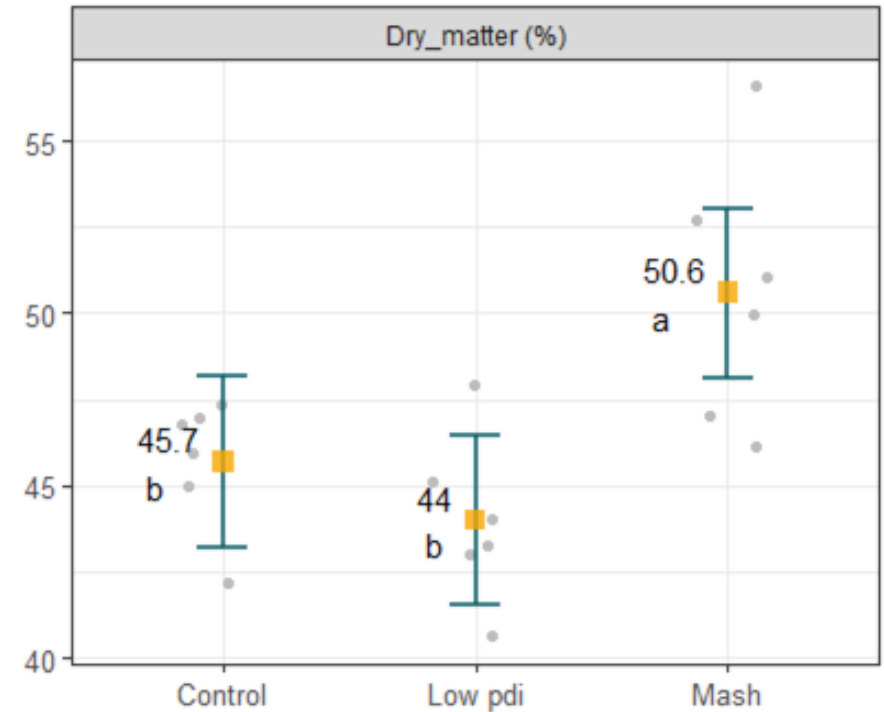
➤ Mash group has lower water consumption over the global period, but also lower feed consumption.

Litter dry matter

56 days



111 days






- Dry Matter advantage for the Mash group
 - Lower feed, water consumption and lower ADG

Conclusions & Discussions



Feed forms matters

Don't Mash up your performance!

	 MASH (100% Basal)	 LOW PDI & FINE (PDI < 80% / Fines > 20%)	 EXCELLENT PELLET (PDI > 90% / Low fines < 10%)
Final live weight - g	12 717	15 040 +18%	15 317 +20%
FCR	2,387	1,968 -18%	1,969 -18%
Growth ADG - g/d	113	133,7 +18%	136,2 +20%
Water intake	632	731 +15%	749 +18%
Feed intake	247,1	276,2 +11%	287,2 +14%
Breast meat weight & % - estimation	2.62kgs - 20.6%	3.39kgs - 22.6% +29%	3.48kgs - 22.7% +32%

“Take home message”

Don't Mash up your performance

- More than 1500 feed samples and 10 years of lab analysis show an heterogeneous results in PDI
- The physical presentation of the feed strongly impacts turkey performance.
- Using feed in mash form significantly degrades the Feed Conversion Ratio and Average Daily Gain (ADG).
- An ideal, durable pellet form is crucial for achieving better final weights.
- Even a minor reduction in feed durability can negatively affect consumption and weight gain.
- If Mash is a standard;
 - Crumble for the starting period
 - Nutrition density might helps

And the winner is ROCKY PELBOA by KO!

