# LESSONS FROM THE

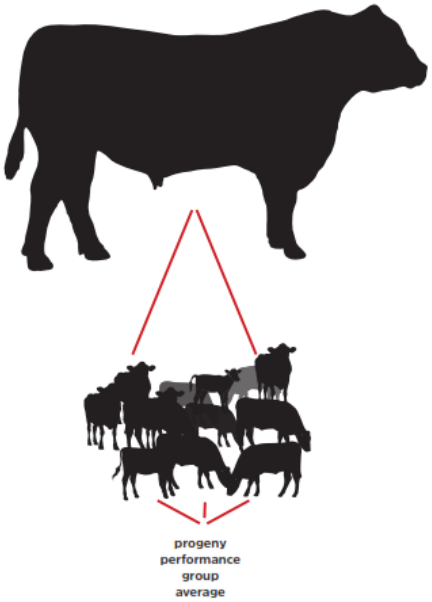

How Much Genetic Variation Exists Between Angus Animals?

# How was it calculated?

## STEP 1

#1

CALCULATE AVERAGE PROGENY PERFORMANCE FOR EACH SIRE




## STEP 2

HIGHEST 5


#2

RANK EACH COHORT OF SIRES ON PROGENY PERFORMANCE

(Highest to Lowest on each trait)

LOWEST 5


## STEP 3

#3

CALCULATE DIFFERENCE IN PROGENY PERFORMANCE BETWEEN 5 HIGHEST AND 5 LOWEST PERFORMING SIRES IN EACH COHORT

AVERAGE PROGENY PERFORMANCE OF 5 HIGHEST SIRES

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AVERAGE PROGENY PERFORMANCE OF 5 LOWEST SIRES

=

DIFFERENCE IN AVERAGE PROGENY PERFORMANCE

Angus AUSTRALIA

# Variation in Calving Ease & Fertility

## *Traits*

- *Birth Weight*
- *Gestation Length*
- *Days to Calving*

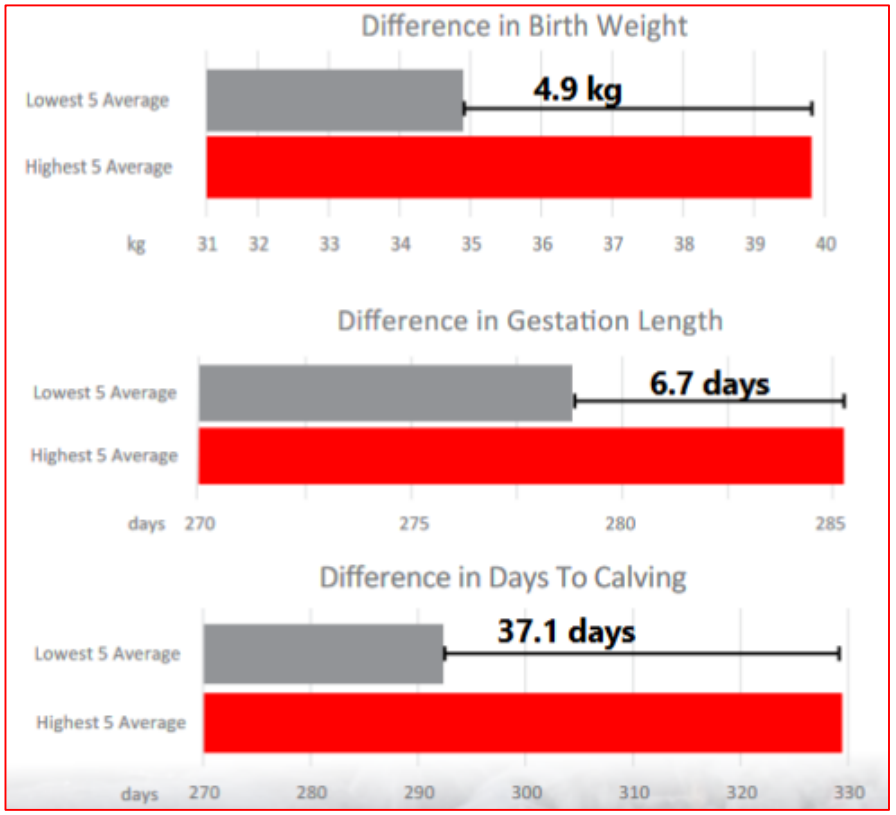


**TABLE 1:** Difference between average progeny performance of highest five and lowest five performing sires for birth and fertility traits

| | Birth Weight | Gestation Length | Days to Calving |
|---|---|---|---|
| Cohort 1 | 4.4 kg | 7.0 days | 45.7 days |
| Cohort 2 | 4.8 kg | 5.9 days | 44.8 days |
| Cohort 3 | 5.5 kg | 7.4 days | 20.8 days |
| Average | 4.9 kg | 6.7 days | 37.1 days |

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# Variation in Growth Traits

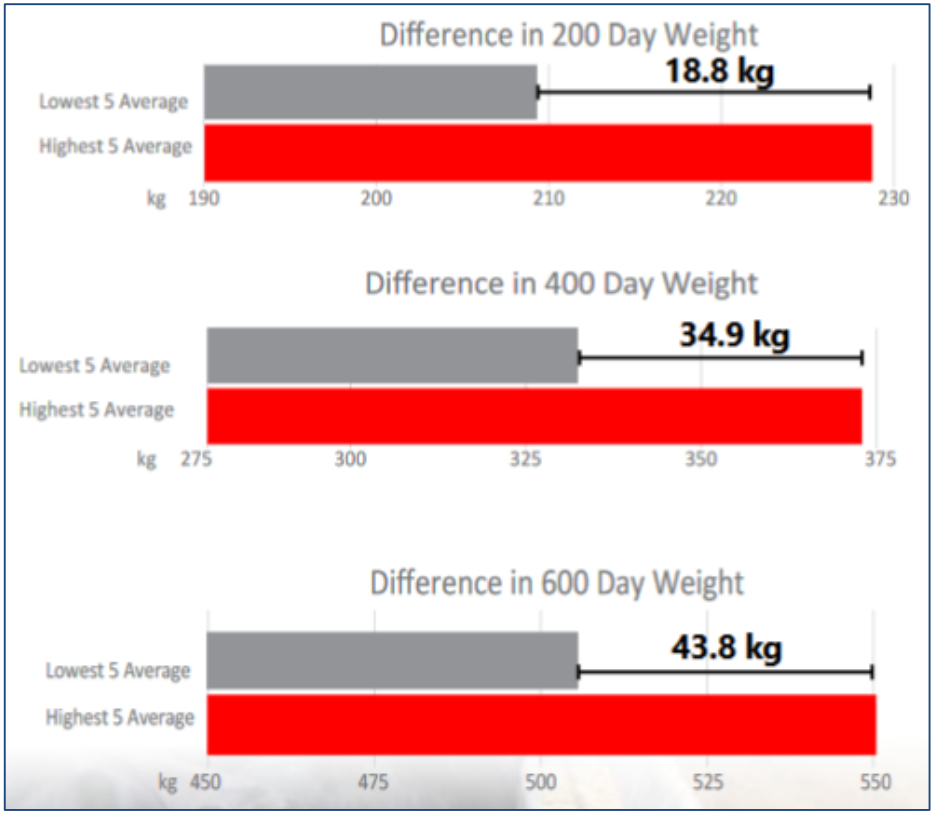


**TABLE 2:** Difference between average progeny performance of highest five and lowest five performing sires for growth traits (200, 400 and 600 days)

| | 200 Day Weight | 400 Day Weight | 600 Day Weight |
|---|---|---|---|
| Cohort 1 | 15.7 kg | 28.4 kg | 35.6 kg |
| Cohort 2 | 23.3 kg | 35.0 kg | 44.8 kg |
| Cohort 3 | 17.4 kg | 41.3 kg | 51.1 kg |
| **Average** | **18.8 kg** | **34.9 kg** | **43.8 kg** |

## *Traits*

- *200 Day Weight*
- *400 Day Weight*
- *600 Day Weight*

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# Variation in Net Feed Intake - Feedlot

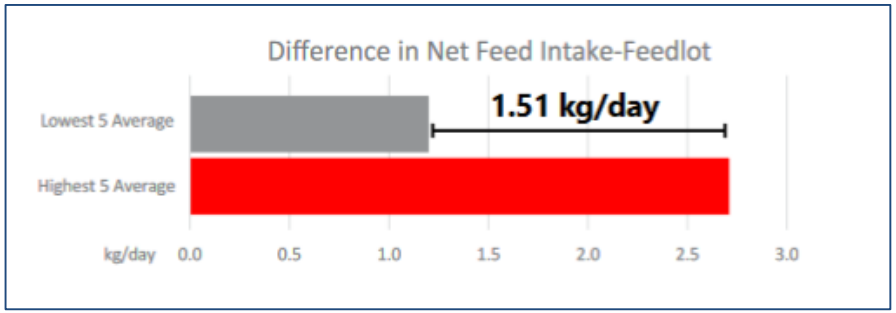
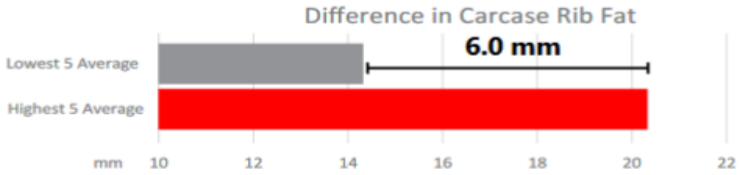
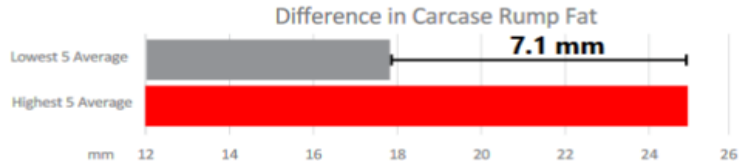


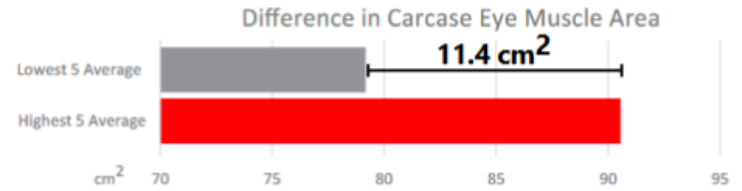

**TABLE 3**: Difference between average progeny performance of highest five and lowest five performing sires for Net Feed Intake - Feedlot

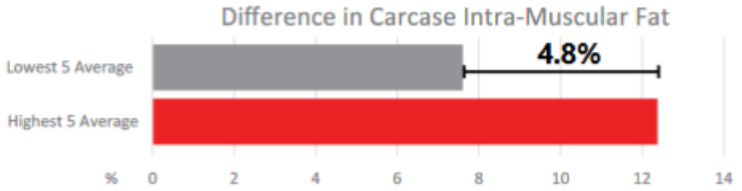
| | **Net Feed Intake - Feedlot** |
|---|---|
| Cohort 1 | 1.24 kg/day |
| Cohort 2 | 1.70 kg/day |
| Cohort 3 | 1.58 kg/day |
| Average | 1.51 kg/day |

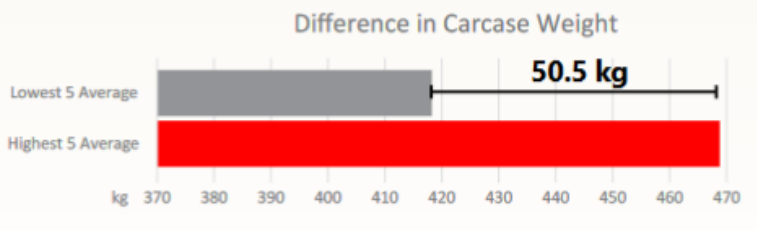
# Variation in Carcase Composition

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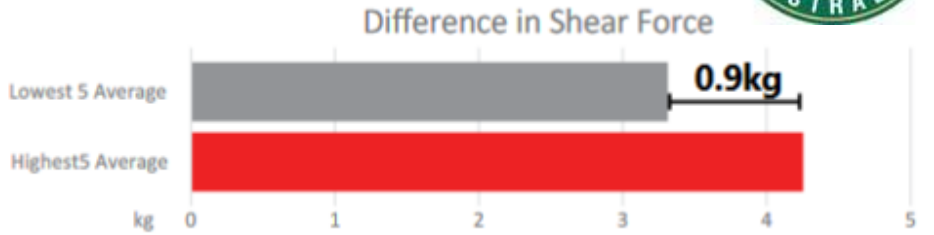
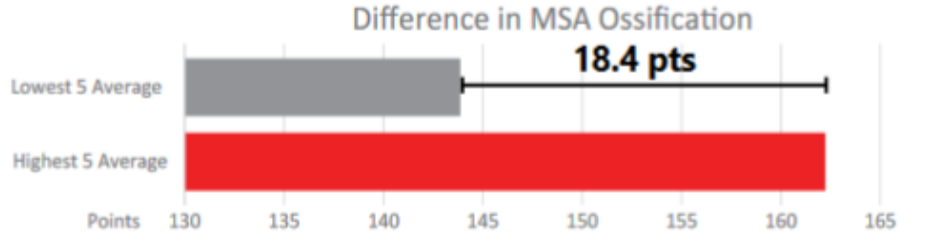
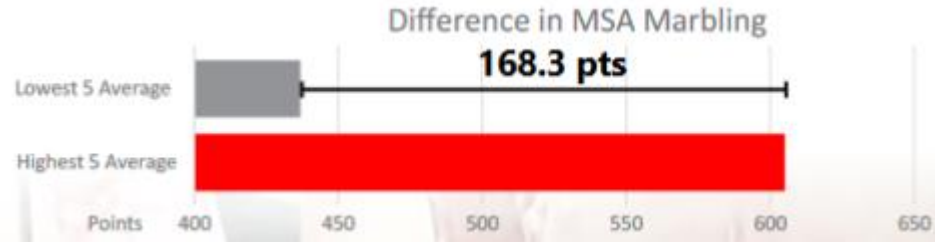
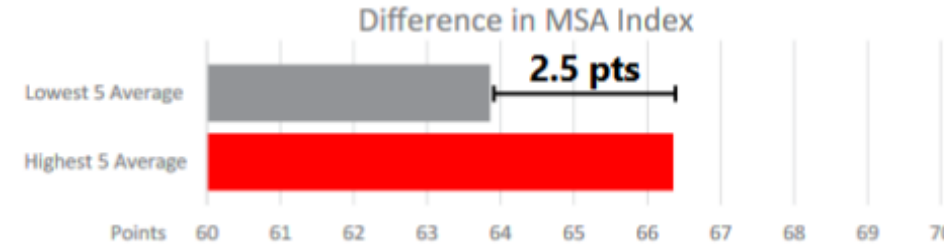
# Variation in Carcase Quality

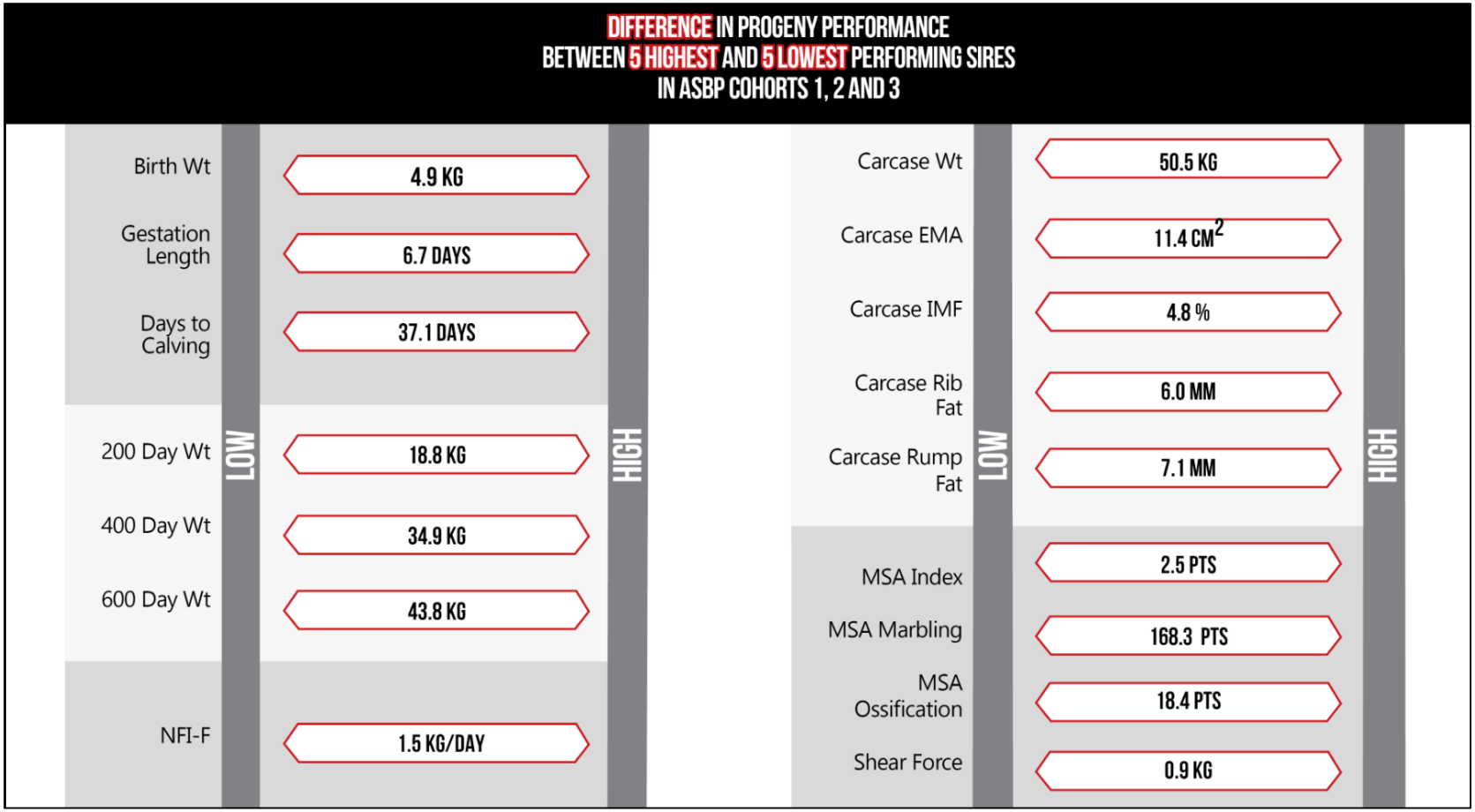


# There is a significant amount of genetic variation between animals within the angus population.




**This variation presents an opportunity to improve the productivity and profitability of Angus enterprises by utilising better genetics.**

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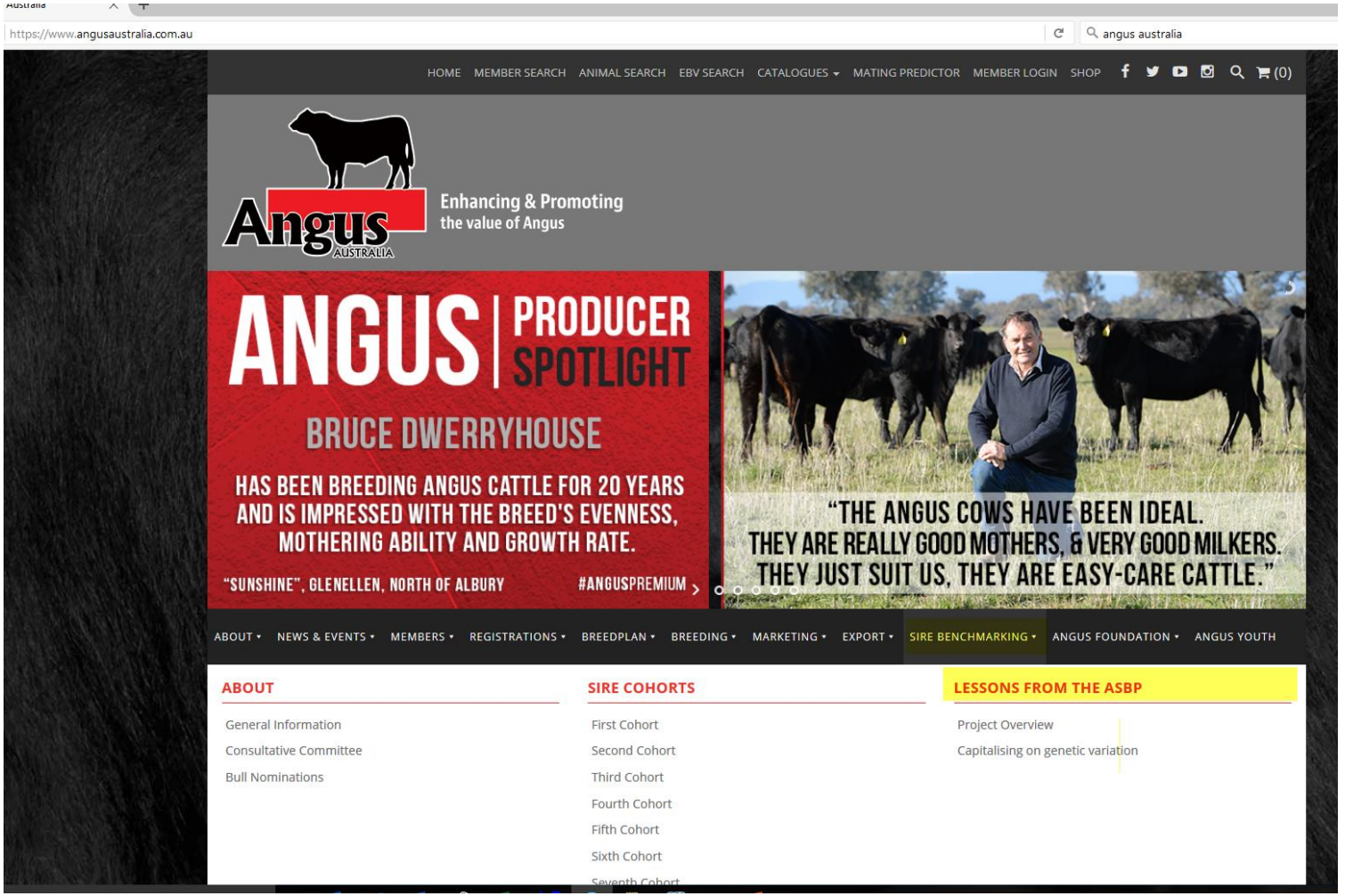
# FOR MORE INFORMATION:

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