Table 1: Random Forest Field validation: model results*1*

Linear model effects of Eimeria infection variables on predicted weight loss

| Model/Effect | Comparison | n | Effect Size*2* | SE | p-value | Model R² | F-test p |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Species-Specific Effects** | | | | | | | |
| Species Model: *E. ferrisi* | vs Uninfected | 169 | +1.25% | 0.428 | 0.004 | 0.082 | <0.001 |
| Species Model: *E. falciformis* | vs Uninfected | 169 | +2.06% | 0.686 | 0.003 | 0.082 | <0.001 |
| **Infection Detection** | | | | | | | |
| Infection Status Effect | Infected vs Uninfected | 305 | +1.15% | 0.279 | <0.001 | 0.053 | <0.001 |
| *1*All models: predicted\_weight\_loss ~ infection\_variable. Positive values indicate infected mice have higher predicted weight loss | | | | | | | |
| *2*Effect size represents increase in predicted weight loss for infected mice compared to uninfected controls | | | | | | | |