*Supplementary Material*

Exploring deep learning for complex trait genomic prediction in polyploid outcrossing species

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**Table S2:** Optimum hyperparameter choice in blueberry data.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Trait | AF CNN / MLP | # CNN Layers /  # Filters | # MLP layers /  # Neurons | Weight decay | Dropout rate CNN / MLP |
| Firmness | Linear / linear | 1 / 128 | 1 / 8 | 0.001 | 0.2 / 0 |
| Scar | Linear / linear | 1 / 64 | 3 / 8 | 0.01 - 0.001 | 0.1 / 0.1 |
| Size | Linear / linear | 2 / 16 | 1 / 64 | 0.001 | 0.1 / 0.2 |
| Weight | Linear / linear | 1 / 128 | 1 / 8 | 0.001 | 0.2 / 0.01 |
| Yield | Linear / linear | 1 / 64 | 1 / 8 | 0.01 | 0.05 / 0.1 |