



Model Development Phase

| Date | 06 July 2024 |
|---------------|----------------------------|
| Team ID | 739665 |
| Project Title | BlueBerry Yield Prediction |
| Maximum Marks | 5 Marks |

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

| Feature | Description | Selected(yes/No) | Reasoning |
|-----------|----------------------------|------------------|---|
| Row# | Unique identity of a row | No | Not relevant for prediction. |
| clonesize | Size of the bluberry clone | Yes | Directly influences the yield and health of the blueberry |
| honeybee | Presence of honeybees | Yes | Pollination by honeybees affects the fruit set and yield. |
| bumbles | Presence of bumbles | Yes | Pollination by bumbles affects the fruit set and yield. |
| andrena | Presence of andrena | Yes | Pollination by andrena affects the fruit set and yield. |

| osmia | Presence of osmia | Yes | Pollination by osmia affects the fruit set and yield. |
|----------------------|--|-----|--|
| MaxOfUpperTRange | Maximum of the upper temperature range | Yes | Temperature ranges are critical for blueberry growth. |
| MinOfUpperTRange | Minimum of the upper temperature range | Yes | Temperature ranges are critical for blueberry growth. |
| AverageOfUpperTRange | Average of the upper temperature range | Yes | Temperature ranges are critical for blueberry growth. |
| MaxOfLowerTRange | Maximum of the lower temperature range | Yes | Temperature ranges are critical for blueberry growth. |
| MinOfLowerTRange | Minimum of the lower temperature range | Yes | Temperature ranges are critical for blueberry growth. |
| AverageOfLowerTRange | Average of the lower temperature range | Yes | Temperature ranges are critical for blueberry growth. |
| RainingDays | Number of days with rainfall | Yes | Rainfall affects plant hydration and growth. |
| AverageRainingDays | Average number of days with rainfall | Yes | Rainfall affects plant hydration and growth. |
| fruitset | Percentage of flowers that develop into fruits | Yes | Direct measure of reproductive success, influencing yield. |

| fruitmass | Mass of the fruit | | Heavier fruits contribute to higher yield. |
|-----------|----------------------------|-----|---|
| seeds | Number of seeds per fruit | | Seed count can affect the fruit quality and yield. |
| yield | Total yield of blueberries | Yes | The target variable for predictive |
| | | | modelling, essential for determining prediction accuracy. |