Machine learning algorithms have become integral to contemporary image processing techniques for mango disease detection, offering sophisticated capabilities for analyzing complex image data. These algorithms, particularly those designed for recognizing features associated with diseases such as anthracnose, have demonstrated efficacy in improving diagnostic accuracy (Ref-u007313). By employing advanced models, machine learning techniques can process large volumes of image data to identify disease patterns that may be imperceptible to the human eye (Ref-u007313). However, the effectiveness of these algorithms often hinges on the availability of substantial datasets, which are necessary for training the models to achieve high accuracy levels. Despite these advancements, the continuous evolution of machine learning approaches is essential to address the ongoing challenges related to data variation and computational demands, ensuring that these systems remain robust and adaptable in diverse agricultural settings.