

基于图像处理的小麦病害诊断算法 Image Diagnosis Algorithm of Diseased Wheat

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关键词: 小麦 病害诊断 图像处理 小波变换 纹理矩阵

摘要: 通过小波变换和纹理矩阵计算, 强调了小麦病害部位。由自动阈值处理获得病害部位的二值图像; 通过二值图像与原图像的匹配, 计算出病害部位的颜色特征值; 以待测病害图像与库存病害图像之间颜色特征值差值最小为原则, 检索出库存病害图像。算法对小麦病害图像的诊断准确率达90%。

Diseased areas were emphasized using wavelet transformation and texture matrix, of which the binary image was obtained by threshold processing. Color values of the diseased area were calculated by matching the binary image and the original image. The diseased image in the database was searched using a principle of the least difference of color value between current image and image in database. Then the right rate of the detecting with the algorithm is above 90%.

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