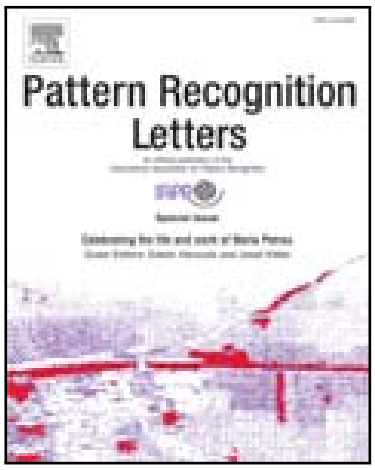

Categorizing plant images at the variety level: did you say fine-grained ?

Julien Champ, Titouan Lorieul, Pierre Bonnet, Alexis Joly

PII: S0167-8655(16)30106-4
DOI: 10.1016/j.patrec.2016.05.022
Reference: PATREC 6546

To appear in: *Pattern Recognition Letters*

Received date: 24 March 2015
Accepted date: 23 May 2016

Please cite this article as: Julien Champ, Titouan Lorieul, Pierre Bonnet, Alexis Joly, Categorizing plant images at the variety level: did you say fine-grained ?, *Pattern Recognition Letters* (2016), doi: 10.1016/j.patrec.2016.05.022

Research Highlights (Required)

To create your highlights, please type the highlights against each `\item` command.

It should be short collection of bullet points that convey the core findings of the article. It should include 3 to 5 bullet points (maximum 85 characters, including spaces, per bullet point.)

- two new datasets were created for the evaluation of plant varieties recognition
- an experimental study was conducted with today's best performing techniques
- recognizing rice seeds variety appears to be feasible in controlled environment
- recognizing grape varieties from their leaves is still an open problem
- results show that convolutional neural networks perform the best on such problems