



# Phytophthora: Identifying Species by Morphology and DNA Fingerprints

*Mannon E. Gallegly*

Download now

[Click here](#) if your download doesn't start automatically

# Phytophthora: Identifying Species by Morphology and DNA Fingerprints

*Mannon E. Gallegly*

## **Phytophthora: Identifying Species by Morphology and DNA Fingerprints** Mannon E. Gallegly

The genus *Phytophthora*, known as the plant destroyer, is one of the most important group of disease causing organisms. This genus contains the potato blight pathogen, *Phytophthora infestans*, and the sudden oak death pathogen, *Phytophthora ramorum*. Currently the latter species is classified as invasive, and a second one, *Phytophthora kernoviae*, is about to be placed in this category. Intensive surveys for the presence of these new potentially deadly pathogens have been underway and will continue with funding to search for the second invasive species. Whether or not additional new species with potential destructiveness are found, there are older known species which can erupt at any time and severely damage our crop plants. Correctly identifying them to species level is the first critical step in mitigating crop health risk locally and ensuring plant biosecurity globally.

The new identification key, *Phytophthora: Identifying Species by Morphology and DNA Fingerprints*, enables diagnosticians and regulatory personnel as well as researchers to identify *Phytophthora* species with speed and confidence. There were only about 50 identified species when the last key was published in 1990, but now that species number is approaching 100. In addition, there have been tremendous efforts in search of a reliable, high-resolution molecular character for rapid identification. This book presents a new key, integrating the classical morphological approach and a new DNA fingerprinting technique called PCR-SSCP. The dichotomous key uses minimal morphological characters, followed by pictorial illustrations. The DNA fingerprint key uses only the rDNA-ITS region amplified with a single pair of primers; a detailed step-by-step fingerprinting protocol is provided.

A total of 652 original photos are included to illustrate individual species covered as well as a partial list of other molecular characters used for description of new species and differentiation of existing species in recent years. This book will be an excellent resource for those who are interested in identifying *Phytophthora* species. Sixty of the important species and taxons are presented in the book. Also, the framework of the identification keys in the book will readily accept the introduction of additional species as they are studied and described.

## Features and Benefits of the NEW *Phytophthora* Identification Key

Integration of classical approach and modern DNA finger printing technology - This enables students, teaches, diagnosticians, and researchers to correctly identify *Phytophthora*; they can use one method to identify and another to confirm isolate identities. Plus, it allows those who are skilled in DNA fingerprinting techniques to learn the classical approach and visa versa.

New dichotomous-like key is presented using minimal morphological characters and the DNA fingerprint key uses only the rDNA-ITS region amplified with a single pair of universal primers - This enables plant health regulatory personnel and diagnosticians to quickly identify Phytophthora species.

Pictorial illustrations of morphological characters used in the key and description of individual species - This helps beginners to understand and master essential taxonomic terms and diagnostic characters of individual species. It will also bring them up to speed in their new research and diagnostic service positions.

Step by step procedures are provided for all methods used in development of both keys - This allows key users to easily become adept in species identification.

Provides a PCR-SSCP fingerprint key along with the protocol of how to use it - This DNA fingerprint technique is quicker and can be used as a confirmation of the morphological identification. Diagnosticians and beginning students c

 [Download Phytophthora: Identifying Species by Morphology an ...pdf](#)

 [Read Online Phytophthora: Identifying Species by Morphology ...pdf](#)

## **Download and Read Free Online Phytophthora: Identifying Species by Morphology and DNA Fingerprints Mannon E. Gallegly**

---

### **From reader reviews:**

#### **Tracie Berry:**

What do you concerning book? It is not important with you? Or just adding material when you want something to explain what the ones you have problem? How about your time? Or are you busy person? If you don't have spare time to accomplish others business, it is gives you the sense of being bored faster. And you have free time? What did you do? Every person has many questions above. They need to answer that question because just their can do that. It said that about guide. Book is familiar in each person. Yes, it is correct. Because start from on guardería until university need that Phytophthora: Identifying Species by Morphology and DNA Fingerprints to read.

#### **Jessie Taylor:**

This book untitled Phytophthora: Identifying Species by Morphology and DNA Fingerprints to be one of several books in which best seller in this year, honestly, that is because when you read this publication you can get a lot of benefit on it. You will easily to buy that book in the book retail store or you can order it through online. The publisher in this book sells the e-book too. It makes you more readily to read this book, as you can read this book in your Smart phone. So there is no reason to you personally to past this publication from your list.

#### **Agnes Shivers:**

The e-book with title Phytophthora: Identifying Species by Morphology and DNA Fingerprints has lot of information that you can find out it. You can get a lot of gain after read this book. That book exist new understanding the information that exist in this reserve represented the condition of the world right now. That is important to yo7u to know how the improvement of the world. This specific book will bring you in new era of the globalization. You can read the e-book on the smart phone, so you can read the idea anywhere you want.

#### **Danica Johnson:**

Reading a book being new life style in this calendar year; every people loves to study a book. When you read a book you can get a lot of benefit. When you read ebooks, you can improve your knowledge, mainly because book has a lot of information upon it. The information that you will get depend on what kinds of book that you have read. If you want to get information about your research, you can read education books, but if you want to entertain yourself you are able to a fiction books, this kind of us novel, comics, in addition to soon. The Phytophthora: Identifying Species by Morphology and DNA Fingerprints offer you a new experience in studying a book.

**Download and Read Online Phytophthora: Identifying Species by  
Morphology and DNA Fingerprints Mannon E. Gallegly  
#S5ZP3B14QCM**

## **Read Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly for online ebook**

Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly books to read online.

### **Online Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly ebook PDF download**

### **Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly Doc**

Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly Mobipocket

Phytophthora: Identifying Species by Morphology and DNA Fingerprints by Mannon E. Gallegly EPub