

Advanced Master Gardener Training

Growing Healthy Plants Basics in Plant Disease Management

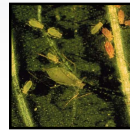
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1

Plant Disease Management Definition

- Anything that you can do to reduce the impact of disease
- Integrated with other types of management



2

Plant Disease Management Diagnosis

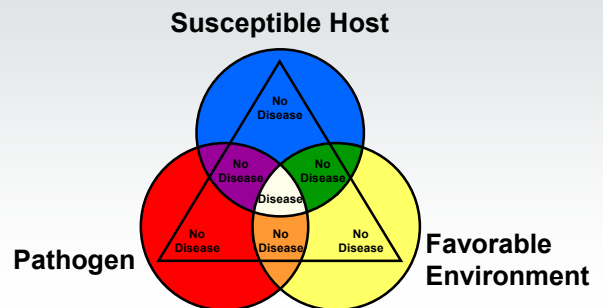
- First step in successful management
- Recognition that something is wrong



- Detective work to figure out what happened and why something happened

3

Plant Disease Management The Disease Triangle



4

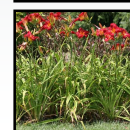
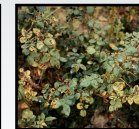
Plant Disease Management R-E-P-E-A-T

- Resistance
- Exclusion
- Protection
- Eradication
- Avoidance
- Therapy

5

Plant Disease Management Resistance

- Using a plant's natural ability to fend off disease



6

Plant Disease Management Resistance

- Resistance is NOT universal!



7

Plant Disease Management Resistance

- Resistance is NOT immunity!



8

Plant Disease Management Resistance

- Resistance can depend on plant “age” and plant part!



9

Plant Disease Management Resistance

- Resistance effectiveness can depend on the weather!



10

Plant Disease Management Resistance

- Resistance may not be equally effective in all locations!



11

Plant Disease Management Resistance

- Resistance is sometimes NOT forever!



12

Plant Disease Management Resistance

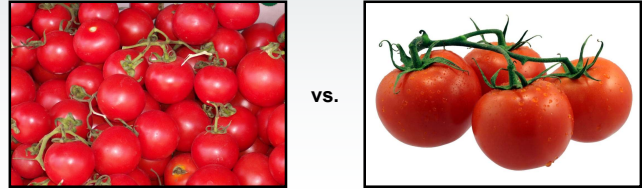
- Resistance is not everything you may need in a plant!



13

Plant Disease Management Resistance

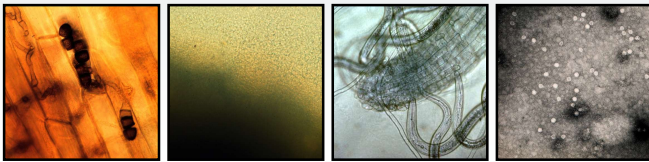
- Resistance is not always good!



14

Plant Disease Management Exclusion

- Preventing introduction of pathogens into you garden



15

Plant Disease Management Exclusion

- Buy healthy plants!



16

Plant Disease Management Exclusion

- Buy healthy seeds!



17

Plant Disease Management Exclusion

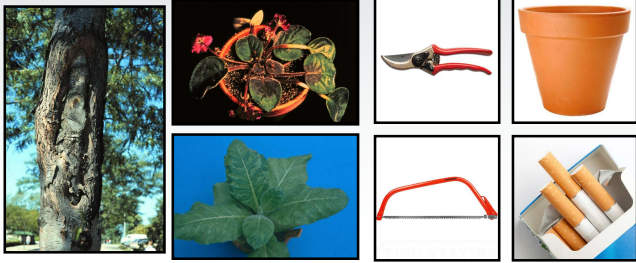
- Limit soil movement!



18

Plant Disease Management Exclusion

- Limit other pathogen introductions!



19

Plant Disease Management Exclusion

- Decontaminate, decontaminate, decontaminate!



20

Plant Disease Management Protection

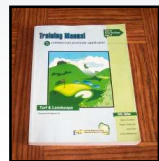
- Applying materials to prevent infections by pathogens from occurring



21

Plant Disease Management Protection

- Use as a last resort!
- Read pesticide labels!
- Use proper rates!
- Apply at the right times!
- Wear appropriate clothing!
- Alternate active ingredients!
- Get training!



22

Plant Disease Management Eradication

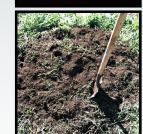
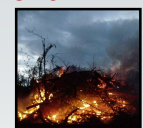
- Getting rid of pathogens once they have arrived in your garden



23

Plant Disease Management Eradication

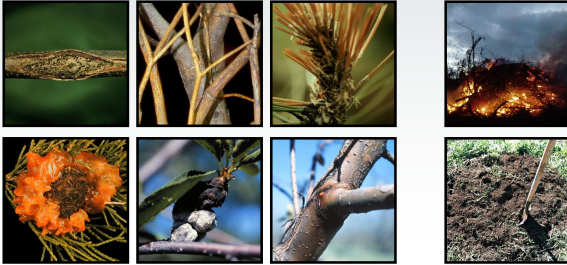
- Do good fall clean-up!



24

Plant Disease Management Eradication

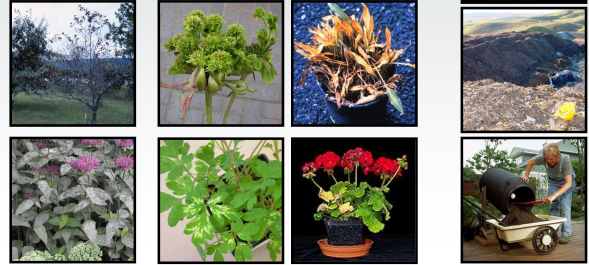
- Prune diseased branches!



25

Plant Disease Management Eradication

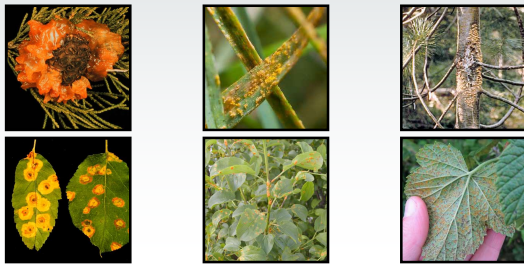
- Remove entire plants!



26

Plant Disease Management Eradication

- Control alternate hosts!



27

Plant Disease Management Eradication

- Control weeds!



28

Plant Disease Management Eradication

- Rotate, rotate, rotate!



29

Plant Disease Management Eradication

- Decontaminate, decontaminate, decontaminate!



30

Plant Disease Management Avoidance

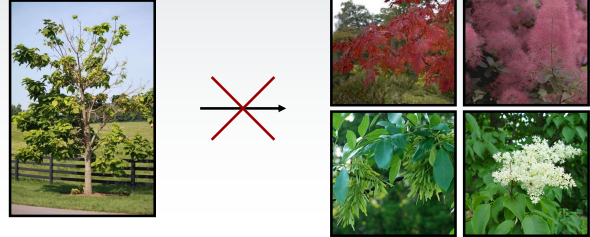
- Manipulating how you grow your plants to prevent conditions favorable for disease



31

Plant Disease Management Avoidance

- DO NOT plant susceptible plants where a known disease exists!



32

Plant Disease Management Avoidance

- DO NOT plant too early or too deeply!



33

Plant Disease Management Avoidance

- DO NOT plant too densely!



34

Plant Disease Management Avoidance

- DO NOT water too much!



35

Plant Disease Management Avoidance

- DO NOT use sprinklers to water!



36

Plant Disease Management Avoidance

- DO NOT water, heat or nutrient stress plants!



37

Plant Disease Management Therapy

- Eliminating pathogens from infected plants



38

Plant Disease Management Putting It All Together

- Figure out what diseases you have
- Figure out what management techniques work
- Integrate your disease management with other management needs
- DO NOT expect perfection
- Enjoy your garden (including the diseases)

39

Plant Disease Management Where to Go for Help

Plant Disease Diagnostics Clinic
Department of Plant Pathology
University of Wisconsin-Madison
1630 Linden Drive
Madison, WI 53706-1598
(608) 262-2863
pddc@wisc.edu
<https://pddc.wisc.edu>
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40