

Long Island Sustainable Winegrowing Disease Control Program ©

LISW's Disease Control Program is based on a combination of physical practices such as leaf removal and hedging that reduce disease pressure and the astute use of protective fungicides selected primarily from groups including EPA Reduced Risk fungicides, EPA Bio-pesticides, National Organic Standard's Board Organic fungicides, and "Low-Impact" "conventional fungicides such as sulfur, stilet oil, phosphorous acid, potassium bicarbonate, etc. Standard, conventional fungicides are allowed, as long as they are selected from the allowed list and number <50% of individual materials used during growing season.

Each pesticide applied is an application, regardless of rate.

Material Categories

NOT ALLOWED

Use in Agriculture/Horticulture has led to Groundwater Concerns

<u>Active Ingredient</u>	<u>Trade Name</u>
Azoxystrobin	Abound
Azoxystrobin + Difenconazole	Quadris Top

Restricted Use Fungicides (RUP)

<u>Active Ingredient</u>	<u>Trade Name</u>
Triflumizole	Procure
Mancozeb + zoxamide	Gavel

ALLOWED: LISW LOW-IMPACT
Reduced Risk Fungicides (EPA designated)

Active Ingredient

Trade Name

Boscalid	Endura
Cyazofamid	Ranman
Cyprodinil	Vanguard
Fenhexamid	Elevate
Mandipropamid	Revus
Pyrimethanil	Scala
Quinoxifen	Quintec
Trifloxystrobin	Flint
Pyriofenone	Prolivo

Bio-pesticides (EPA designated)

Active Ingredient

Trade Name

Aureobasidium pullulans	Botector
Bacillus amyloliquefaciens	Double Nickel
Bacillus pumulis	Sonata
Bacillus subtilis	Serenade
Reynoutria sachalinensis	Regalia
Streptomyces lydicus	Actinovate

Organic Fungicides (NOSB allowed)

Active Ingredient

Trade Name

Bacillus mycoides	Lifegard
Cytokinin	Stimplex crop bio-stimulant
Hydrogen Dioxide (Peroxide)	Oxidate
Organic formulation of Copper	Champ WG, NuCop50WP, Badge X2
Organic formulation of Paraffinic Oil	JMS Stylet Oil, Pure Spray Green
Organic formulation of Sulfur	Microthiol Disperss
Potassium Bicarbonate	Kaligreen
Rhamnolipid biosurfactant	Zonix

LISW Material Review Committee Low-Impact

<u>Active Ingredient</u>	<u>Trade Name</u>
BLAD	Fracture
Copper sulfate, hydroxide	Several names, Kocide
Laminarin	Vacciplant
Metrafenone	Vivando
Phosphorous Acid	Several names
Polyoxin D zinc salt	Ph-D
Potassium Bicarbonate	Armicarb
Potassium Hydrogen Phosphate	Nutrol
Sulfur	Several names

Combination Fungicides

Combination fungicides such as the four (4) below contain both an **EPA Reduced-Risk Fungicide** and a **Conventional Fungicide**. The **Reduced-Risk** component of the combination product formulation is counted as a separate “Low-Impact” fungicide application, while the **Conventional** component is counted as a separate **Conventional** application. This separation will allow a more rational scoring as delineated below. Fungicide in **green** is the Low-Impact material.

<u>Active Ingredient</u>	<u>Trade Name</u>
Difenoconazole + Cyprodinil	Inspire Super
Mandipropamid + Difenconazole	Revus Top
Pyraclostrobin + Boscalid	Pristine
Tebuconazole + Trifloxystrobin	Adament
Benzovindiflupyr + Difenconazole	Aprovia Top
Mancozeb + Copper hydroxide	Mankocide

ALLOWED: CONVENTIONAL

Conventional Fungicides

<u>Active Ingredient</u>	<u>Trade Name</u>
Captan	Captan
Cyflufenamid	Torino
Cymoxanil, Famoxadone	Tanos
Dimethomorph	Forum

Ferbam	Granuflo
Iprodione	Rovral
Mancozeb	All formulations allowed, including RUP products
Metalaxyl/Mefnoxam	Ridomil, Ridomil Gold (Restricted to one application/season regardless of product)
Myclobutanil	Rally
Tetraconazole	Mettle
Tebuconazole	Orius, Tebuzol
Thiophanate-methyl	Topsin-M
Ziram	Ziram
Benzovindiflupyr	Aprovia Top

LISW Fungicide Scoring System

The Core Criteria states that a score of “1” is necessary for page 94 of the Workbook. A score of “1” is achieved when >50% of individual materials used for control of fungal diseases are “Low-Impact”, ie— either EPA Reduced Risk, EPA Minimum Risk, EPA Bio-pesticide, are either OMRI-listed Organic or Washington State Department of Agriculture-listed Organic, or are considered as “Low-Impact” materials after careful evaluation by the LISW Material Review Committee.

How is this scored?

Step 1: at the end of the season, the total number of applications of all fungicides is reviewed.

Combination materials such as Pristine are considered as two separate fungicide applications.

Step 2: the total number of applications of Reduced Risk, Minimum Risk, Bio-pesticide, Organic and Conventional “Low-Impact” fungicidal materials is tallied.

Step 3: divide the total number of “Low-Impact” fungicidal materials (as listed in Step 2) used by the total number of all fungicidal materials used. Multiply by 100. This gives you the percentage “Low-Impact” materials used. sprayed fungicidal materials on their vineyard 11 times during a season. Each separate application contained 3 separate fungicidal materials.

EXAMPLE

11 X 3 = 33 fungicides used

If 25 out of the 33 were “Low-Impact” materials

$25/33 \times 100 = 75\%$ “Low-Impact” materials used for fungus control during growing