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| --- |
| Logo AGES |
| Strawberry viruses |
|  |  |
| 15.01.2025 10:16 Uhr |

**Strawberry
viruses**

**Strawberry
crinkle
cytorhabdovirus
(SCrVOO),
Strawberry
mild
yellow
edge
virus
(SMYE),
Raspberry
ringspot
virus
(RPRSVO),
Tomato
black
ring
virus
(TBRV),
Arabis
mosaic
virus
(ARMV),
Strawberry
latent
ringspot
virus
(SLRSVO)**

Last
change:
05.09.2024

**Profile**

There
are
different
types
of
viral
diseases
of
strawberry.
The
symptoms
can
vary
greatly
and
depend,
among
other
things,
on
the
virus
strain
and
the
susceptibility
of
the
strawberry
varieties.
The
viruses
mentioned
are
transmitted
by
aphids
or
nematodes
and
are
listed
as
harmful
organisms.

**Damage
symptoms**

The
symptoms
caused
by
viruses
on
strawberries
can
vary
and
are
strongly
dependent
on
the
aggressiveness
of
the
respective
virus
strain
and
the
susceptibility
of
the
strawberry
variety
used.
Mixed
infections
with
other
viruses
can
increase
or
change
the
symptom
expression
of
viral
disease
of
strawberry.
Some
viruses
occur
latently,
meaning
that
the
viruses
are
present
in
the
plant
but
symptoms
are
not
yet
visible
(e.g.
Strawberry
latent
ringspot
virus).
For
other
viruses
(e.g.
Strawberry
mild
yellow
edge
virus),
symptoms
only
become
visible
when
the
strawberry
is
infected
with
another
virus.
Furthermore,
the
symptoms
of
viral
diseases
of
strawberries
also
depend
on
the
season
or
temperature
and
on
the
interval
between
infection
and
inspection.
Therefore,
an
exact
assignment
of
visually
visible
symptoms
to
a
single
virus
is
not
possible.
Instead,
attention
should
be
paid
to
general
virus
symptoms.
In
case
of
suspicion,
laboratory
testing
is
essential.

General
virus
symptoms
are:

* Abnormalities
of
the
chlorophyll
apparatus,
e.g.
mosaics,
ring
spots,
yellowing,
vein
lightening,
or
necroses
on
the
leaves.
* Shape
changes,
e.g.
rolling,
curling
of
leaves,
reduction
of
leaf
area
or
tissue
growths
(enations
-
leaf-like
protrusions),
shoot
deformations,
fruit
deformation
or
hardening
* growth
inhibition,
e.g.
dwarfism

**Host
plants**

* Strawberry
crinkle
virus
and
Strawberry
mild
yellow
edge
virus:
natural
occurrence
only
on
strawberries
(Fragaria
sp.)
* Raspberry
ringspot
virus:
very
large
host
plant
range;
main
hosts
are
raspberry,
strawberry,
cherry,
hops,
grapevine
and
elderberry
* Tomato
black
ring
virus:
large
host
plant
range;
yield
losses
of
economic
importance
on
strawberry,
raspberry,
currant
and
peach
* Arabis
mosaic
virus:
very
large
host
plant
range;
main
hosts:
strawberry,
raspberry,
hops,
grapevine
and
elderberry
* Strawberry
latent
ringspot
virus:
very
large
host
plant
circle,
in
fruit
growing
on
strawberry,
currant,
raspberry
and
blackberry,
elderberry,
peach,
plum,
cherry,
grapevine

**Distribution**

The
above
viruses
are
widespread
in
Europe.

**Propagation
and
transmission**

Strawberry
crinkle
virus
and
Strawberry
mild
yellow
edge
virus
are
transmitted
by
the
aphid
species
*Chaetosiphon
fragaefolii*
occurring
on
strawberries.

Strawberry
latent
ringspot
virus,
Raspberry
ringspot
virus,
Tomato
black
ring
virus
and
Arabis
mosaic
virus
are
transmitted
by
soil
nematodes
of
the
species
*Longidorus*
sp.
and
*Xiphinema*
sp.

**Economic
importance**

While
Strawberry
latent
ringspot
virus
and
Tomato
black
ring
virus
cause
only
minor
damage
and
are
of
secondary
economic
importance,
infections
by
Raspberry
ringspot
virus,
Arabis
mosaic
virus
and
especially
Strawberry
crinkle
virus
weaken
plant
development.
They
lead
to
high
yield
losses,
especially
in
mixed
infections,
and
can
cause
considerable
economic
damage
to
some
varieties.
Strawberry
mild
yellow
edge
virus
causes
damage
only
in
mixed
infections.

However,
due
to
the
requirements
in
strawberry
certification
and
the
nowadays
common
meristem
propagation
(propagation
from
plant
cells
under
lower
sterile
conditions)
in
the
production
of
elite
plants,
the
practical
importance
of
virus
diseases
in
strawberries
has
decreased
considerably
in
the
last
decades.

**Prevention
and
control**

**Preventive
measures**

* Purchase
of
recognized,
certified
planting
material
(elite
plants)
as
starting
material
for
propagation
* Examination
of
plants
on
arrival
at
the
farm
for
latent
infections
* Planting
material
production:
examination
of
the
soil
for
the
virus-transmitting
nematode
species
*Longidorus*
sp.,
*Xiphinema*
sp.
* The
distance
of
the
propagation
area
to
strawberry
plants
for
fruit
production
should
be
at
least
50
m
* prevention
of
virus
transmission
by
vector
treatment
(aphids)
with
approved
plant
protection
products
(see
[list
of
plant
protection
products
approved
in
Austria](https://www.baes.gv.at/zulassung/pflanzenschutzmittel/pflanzenschutzmittelregister/))
* regular
control
of
infestation
during
cultivation

**Measures
in
case
of
suspicion**

* sampling
and
sending
plants
with
typical
symptoms
to
a
testing
laboratory
* Suspension
of
the
sale
of
plants
from
suspected
plant
stocks
or
deliveries
until
the
laboratory
results
are
available
* Remove
and
destroy
diseased
plants
without
harm
to
prevent
further
spreading
* Determine
the
origin
of
the
infestation
(e.g.
additional
purchase,
...)
* In
case
of
positive
detection
of
viruses
transmitted
by
nematodes,
the
field
should
no
longer
be
used
for
seedling
production.

**Phytosanitary
status**

All
of
the
above
viruses
are
Union-regulated
non-quarantine
pests.

**Services**

[Plant
Health
Services](en/plant/plant-health/plant-health-information)