

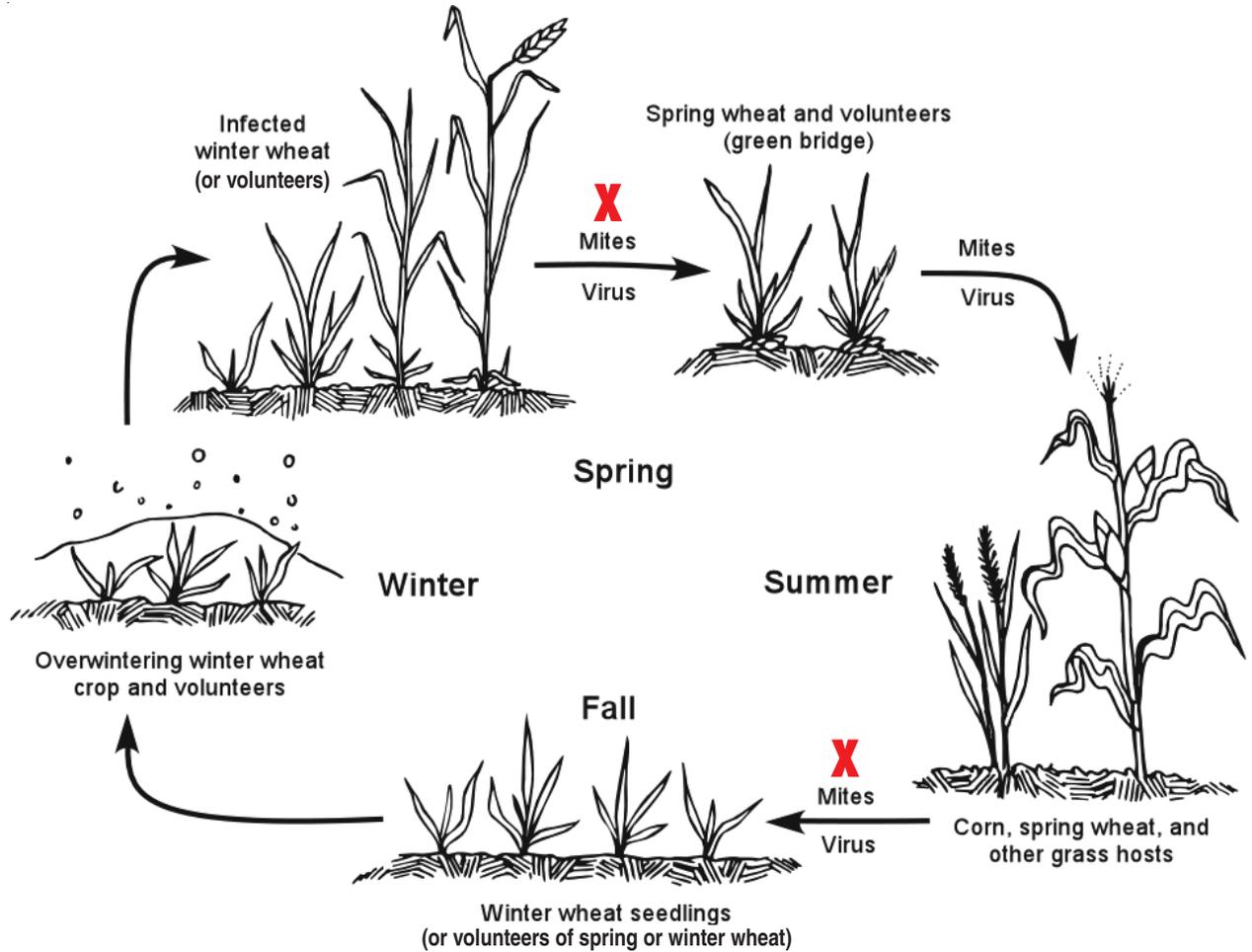
# MANAGEMENT TIPS

## Wheat Streak Mosaic Virus (WSMV)



**BREAK**  
the green bridge  
that spreads WSMV!

## Wheat Streak Mosaic and Wheat Curl Mite Life Cycle



Mite and virus survive because of green bridge between susceptible crops or volunteers

**X = Management aimed at breaking the green bridge**

## Wheat Streak Mosaic Virus

# MANAGEMENT STEPS

### ✓ To break **X**, the green bridge

Control winter wheat and spring wheat volunteers (even those from fields two years ago) and control grassy weeds

- Use knock-down herbicides (or tillage)
- Control **at least two weeks** prior to planting (no “dirty” fields); volunteers must be dead

### ✓ For crops already infected

Spraying glyphosate on already infected crops stimulates mites to rapidly seek a new, healthy crop, so burn-down of infected crops late in spring may allow movement to adjacent healthy wheat fields.

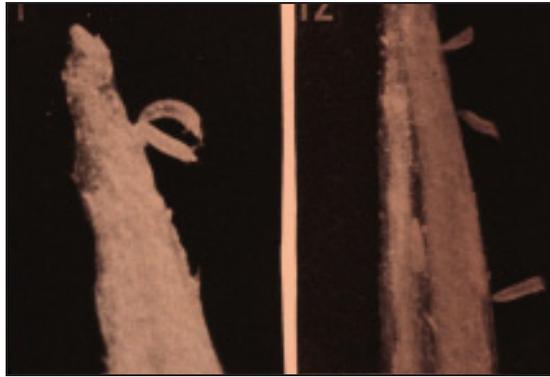
### ✓ Use appropriate planting date

**Winter Wheat:** Plant winter wheat toward end of planting window. Early planting greatly increases risk, as mites more active during warmer temperatures. Don't plant winter wheat adjacent to corn that still is green, as mites can survive in corn.

**Spring Wheat:** Plant spring wheat early, before mite population builds up in winter wheat or volunteers and moves into spring grain. If mites move into spring wheat at late growth stage (flag leaf or later), little yield loss occurs.

Wheat Streak Mosaic Virus (WSMV) causes stunting, pale yellowing, streaking on leaves (other hosts include barley, grassy weeds)

## Wheat Curl Mite Transmits Wheat Streak Mosaic Virus



When plant ripens or turns yellow from disease, mites move to leaf edge and the wind catches them as they position their body horizontally; wind moves mites to adjacent healthy fields.



Mites very small – 1/100 inch, not visible to naked eye or with hand lens; not winged.

# Potential Economic Loss from Wheat Streak

If severe:  
losses of 50 percent  
to 100 percent.

If crop infected early,  
losses more severe;  
if infected at late  
growth stages,  
losses minimal

**Relative susceptibility  
of wheat varieties in  
North Dakota not known**