poor. Conditions for survival during the winter of 1963-64 were quite favorable and there was a continuous snow cover. Losses in stands, however, ranged from 4 to 34 percent. Crown rot was responsible for most of this loss. Losses in stand from crown rot alone were as high as 25 percent.

Damage to roots by root feeding insects (Sitona spp.) was considered extensive in two areas of the province in 1964. Roots of damaged plants were rotting at an accelerated rate.

Virus diseases (clover phyllody and other unidentified viruses) were prevalent every year. Red, alsike and white clovers displaying phyllody symptoms were observed wherever the clovers were found growing. Infections appeared to be more abundant on alsike clover than on red or white clovers. In older stands, up to 20 percent of the plants were showing symptoms. Other virus diseases, the causes of which were not identified, were observed in trace amounts in older stands.

Diseases of Alfalfa

Common leaf spot (Pseudopeziza trifolii f. sp. medicaginis-sativae Schüepp) was the most prevalent and widely distributed leaf spot on alfalfa. It occurred every year and caused some loss in foliage prior to harvest. Defoliation was very heavy by late fall.

Spring black stem (Phoma sp.) was generally prevalent in all three years. Infections were moderate to severe in dense, pure stands but only slight to moderate in mixed stands.

Root and crown rots (various fungi), as with the clovers, comprised one of the most important groups of diseases. Injury to old stands was very severe in 1963. The effects of root rots were usually confounded with the effects of other injurious factors and, therefore, damage caused exclusively by the rots was difficult to determine. In general., the damage was not as extensive as in the clovers.

Diseases of Grasses

Relatively few diseases were observed on the grasses utilized for forage in Prince Edward Island. Of those observed, speckled leaf blotch (Septoria elymi Ell. & Ev.) on quackgrass was the most generally prevalent. Infections, however, varied from a trace to slight and were not considered to be responsible for appreciable loss of forage.

LOSSES OF COLD-STORED STRAWBERRY PLANTS DUE TO MOLD, AND FACTORS AFFECTING THE SURVIVAL OF NEW PLANTINGS IN THE FIELD - 1964

C. L. Lockhart[1]/

A survey of 4 commercial strawberry plant cold storage units in Nova Scotia revealed varying degrees of losses of stored plants as shown in Table 1. Loss of plants in lot D was apparently due to a delay in getting the plants cooled in storage resulting in storage temperatures which favored mold development. The losses in lot A were not associated with improper storage temperature but could have been due to the low oxygen and high carbon dioxide levels recorded in the poly-lined storage crates of this lot in which the polyliners were wrapped tighter than recommended.

Fusarium spp., Cylindocarpon sp., Rhizoctonia sp. and bacteria were the most commonly found organisms growing over the surface of the root; or associated with cortical root rots of stored plants. Isolations from cortical root rot lesions, however, yielded the following in descending order of prevalence: bacteria, Rhizopus sp., Fusarium spp., Penicillium sp., Actinomucor sp., Gliocladium sp., Trichoderma sp., Harknesia sp., Alternaria sp., Botrytis cinerea and Gloeosporium sp.

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Table 1.

Lot	No. of plants	Varieties affected	Per cent loss in storage (unsaleable plants)
A	135,000	Sparkle, Redcoat & Cavalier	5.0
B	139,000	Sparkle	2.9
C	141,000	Redcoat	1.1
D	27,000	Cavalier & Redcoat	6.0
E	50,000	Cavalier	0.0
F	20,000	Several varieties	0.0
G	200,000 (estimated)	Several varieties	0.0
(Total)	712,000		(Av. loss) 1.9 per cent

A field survey was made of 30 new plantings of fall or spring dug cold-stored plants and one planting where plants were not from cold storage to determine the cause of losses in new plantings. Four growers received from the nurseries some moldy plants which apparently became moldy during transit. These were planted but none grew.

The survey represented 60 acres of new plantings and involved 270,000 plants. Records on green petal were taken in only 21 fields. The results are shown below.

Table 2.

Per cent losses (dead or missing plants)		Per cent Green petal		Per cent lost due to pre-planting molds
Range	Av.	Range	Av.	
0-75	20.5	0-20	5.5	1.6

The average loss in new strawberry plantings was 20.5 per cent. Only 1.6 per cent of the plants were lost due to growers receiving moldy plants from nursery cold storages. It is known that green petal accounted for 5.5 per cent of the losses while some of the missing plants removed by the growers prior to the survey may also have been infected with green petal. Green petal appeared to be one of the main factors responsible for loss of new plantings with moldy plants playing a minor role. Losses in the new planting where plants had not been cold stored were 10 per cent. A severe early fall frost in 1963 may have injured plants before they became dormant as signs of frost injury to the crowns were found prior to digging-in of runner plants during the fall of 1963.