

like a hotbed out of it. The fruit ripened without color, and that which was hand-picked had poor color. Where shelter interferes with air circulation you pay very dearly for it.

Mr. McFarlane—In our orchard last season we found on the north and west sides, where there were no other trees near, that we had good apples. The Wealthies proved the best we had. On the other side, where the trees were close together, and didn't seem to have air enough, we had less fruit and more spot. I think we must have a circulation of air to dry the humidity. Some of the Fameuse were spotted where they were too close together; where separated we had good results. Our Wealthies were loaded to the ground; some of them even broke down, and had to be propped up. It was a beautiful sight to see the apples and the color, especially if the trees were not too close together.

Professor Fletcher—Shelter-belts is the subject of discussion. What are they supposed to be a shelter against? Sudden cold? Some apples will grow in some districts, and not in others. I think shelter-belts against the north winds would be valuable. Then the question comes, which is the best shelter-belt? The matter of the stagnation of air goes against common sense. No one should plant anything round his orchard so that there is not a proper circulation of air. I think that shelter-belt means a protection against the winter. I think they are useful. With regard to the willows which have been mentioned, out of 280 different kinds of insects that feed on apple trees, I don't think that half a dozen feed on the willow as well. Nearly 300 feed on the apple, but not a dozen feed on the willow as well, so the insects would not spread from one to the other.

Mr. Chapais—The tent caterpillar will do it.

Professor Fletcher—Oh, yes; it will feed on hundreds of plants, probably. The mistake made in Manitoba was that the people got into the valleys, where there was no air, and where they got frost.

Mr. Johnson—What do you propose for a shelter-belt—a common board fence, five or six feet high, or a hedge?

Mr. J. M. Fisk—A hedge of cedars is about as good as anything.

Mr. Johnson—Is it the tops of the trees that want shelter, or the trunks?

Professor Craig—If I were going to put down a shelter-belt, I would put it on the south side; but if I were going to plant an orchard, I would not put one down. I don't think we can expect to grow it satisfactorily by giving any kind of shelter; I don't think it is a wise thing for us to expect, although we can nurse certain tender varieties. Cold affects trees in such a manner that we cannot expect to get away from it by giving them any kind of wind-breaks. They can stand a certain temperature, and when below that, they die, and we are not going to save them by shelter-belts.

Mr. Barnard—I would like to ask Mr. Chapais, who represents a district identical with the one I do, why we want breaks.