The variety most generally grown under glass is Bonny Best, which is scarlet in colour and smooth. The Livingston Globe is a very good purplish-pink variety and is very solid, making it a good shipper. It does not begin to ripen as soon as some others but is one of the best yielders. Many of the English varieties of greenhouse tomatoes have been tested but the majority of them are too small for most Canadian markets. The Comet is one of the most popular. Dobbie Prolific, Sutton Satisfaction, Hipper No. 2, Industry and Stirling Castle have done well.

There are several diseases which affect the tomato when grown under glass, and, as they are difficult to control, it is desirable by good ventilation and proper attention to temperature, to avoid having them. Burning sulphur carried through the greenhouse is one of the best remedies for mildew on the foliage.

FUMIGATING A GREENHOUSE WITH HYDROCYANIC ACID GAS.

As the white fly is sometimes very troublesome in greenhouses, it is necessary to control it, when present, if one is to have success in growing tomatoes and there is nothing so satisfactory as hydrocyanic acid gas for this purpose. This gas is, however, a deadly poison and great care must be taken in using it. Following is a formula found to be effective at Ottawa in killing flies without injury to the plants. As the eggs are not destroyed by the gas, it is necessary to fumigate from time to time to keep the insects under control.

Formula and directions: ½ ounce potassium cyanide (98 per cent pure) or ½ ounce sodium cyanide; 1 ounce sulphuric acid; 2 ounces water for every 4,000 cubic feet of greenhouse space. When a greenhouse is not very tightly built so that the gas finds a speedy exit, it may be necessary to use 1 ounce potassium cyanide or sodium cyanide; 2 ounces sulphuric acid; 4 ounces water, per 4,000 cubic feet in order to kill the insects, but this is a very powerful gas and if used in too concentrated a form serious burning of foliage will result, so that it is best to find what the weakest strength is that will do the work in a particular greenhouse.

Make the greenhouse as nearly air tight as possible by stopping up holes and closing ventilators. The foliage should be dry. If the foliage is damp there may be injury. The greenhouse should not be fumigated in daylight or not before an hour after sunset. The best range of temperature at which to fumigate is between 55° Fahr. and 68° Fahr. One should not fumigate in a high wind as one part of the house will get more gas than another and foliage might be injured.

Wrap the cyanide in thin tissue paper as the acid should almost immediately reach the cyanide. If the paper is thick or tough action will be delayed and one might return to the greenhouse while gas was being given off and be seriously affected by it as it is a deadly poison. Pour the water into a wide mouthed crockery or earthenware vessel, then add the sulphuric acid. Then start walking quickly from one end of the greenhouse towards the other and, if several vessels are used, which is desirable if the greenhouse be a long one, drop a paper of cyanide without unwrapping, when passing, into each vessel containing the right proportion of water and sulphuric acid, and then go on out through the door at the other end, holding the breath and closing the door, and on no account lingering in the greenhouse as there would be fatal results by doing so since the poisonous gas rises and spreads rapidly. The house should be kept closed until morning when open doors and ventilators from the outside. There should be prominent danger signs kept on the doors of the greenhouse while it is being fumigated as someone might otherwise enter and be killed. In order to make the method of fumigation still safer, the cyanide may be suspended by a string above the vessel containing the sulphuric acid and water and lowered into it from outside the greenhouse. To ensure a good distribution of gas, the vessels should be placed at about thirty feet apart and the necessary proportions of the materials used estimated from the formula given and from the area of the greenhouse. For best results there should not be more than from one-half to an ounce of cyanide in any one vessel. After the fumigation is over, the materials in the vessels should be buried and the vessels thoroughly cleaned to avoid danger of accident.