

until dissolved and then be poured into the barrel with as much less water as has been used for dissolving it.

When the solution is ready for use, fill two barrels half full with it and dip into each a bag containing the wheat intended for treatment. The solution must cover the grain about three or four inches. Lift the bag several times up and down in the solution to drive out the air between the grains and allow it to remain for exactly three minutes, but not for a longer or shorter period. During this time the grain will be evenly wetted and should then be taken out, drained and spread out in a thin layer to dry.

Steeping in formalin.—Solution required: 1 pound of formalin of 40 per cent strength in 40 Imperial gallons of water. Proceed in the same manner as described above, but allow five minutes for immersion. Drain and spread out to dry.

Sprinkling method with bluestone.—This method is far less laborious than steeping, and, if carefully carried out, just as effective.

Solution required: 1 pound of bluestone dissolved in 10 Imperial gallons of water. For this purpose the whole quantity of grain should be piled in a heap on the clean barn floor, and the solution should be sprinkled on this heap by means of an ordinary sprinkling can or a broom. Then begin shovelling over the wheat as quickly as possible, forming another heap, in the manner of mixing cement for instance, and back again until every grain is evenly wetted. More solution may be gently added if it is found that many grains are left dry. The wheat should not be drenched but evenly moistened. When completed, spread out to dry.

Formalin for sprinkling.—In sprinkling with formalin use 1 pound of formalin in 40 Imperial gallons of water and proceed in the same manner as described for sprinkling with sulphate of copper. Leave the pile for two or three hours and cover with sacks, then spread out to dry. (Note.—40 gallons of solution will 'sprinkle' about 40 bushels of grain.)

GENERAL PRECAUTIONS AND HINTS.

Wheat which is badly infected with smut spores requires careful handling, when pouring it on to the barn floor or when handling it at all. The spores will blow away like dust and settle everywhere when such wheat has been moved. Hence the bags, tools or other implements are likely to be contaminated, and, when used for treated wheat, will carry infection. As long as the wheat is still wet, such contamination is of little moment, but when dry it is often re-infected in this manner, and the efficiency of treatment is often regarded with suspicion if, notwithstanding the treatment given, smut does appear in the new crop. Machines, tools and bags may be rendered quite free from smut spores by washing the former or soaking the latter in any of the solution used for treatment. The floor of the barn should be swept before treatment of grain is begun, but not while the treated grain is kept in it. After each separate treatment, wash down the floor of the barn with the solution used. Under no circumstances return the treated grain into the old bags which contained it before treatment unless they have been soaked in bluestone or formalin solution and dried.

Solutions do not lose strength.—The bluestone solution remains of the same strength as when first prepared and may be used over and over again. Add more solution if the quantity is reduced by use.

The formalin solution rather increases in strength when kept for a time; the water evaporates more quickly than the gas.

Treating large quantities—formalin preferred.—In the Western provinces or elsewhere, where large quantities of wheat are required to be treated, the sprinkling method, using the formalin solution, will be found more convenient, if it is carried out in the grain wagon. For this purpose pile the grain up towards one end of the