

Sampela rot bilong daunim bagarap bilong ais insait long gaden



Frost occurs in PNG highlands very infrequently. However, during drought and clear nights after hot still days, frost can fall and kill kaukau, pumpkin potato...



Frost occurs mostly during droughts, when soils are dry and soil and plant temperatures can fall easily.

It is not easy to protect gardens from frost.

Remember that frost is hardest on flat ground at bottom of hill slopes. Care for some kaukau on the sloping part of the hill.

First we must understand what causes frost, then we can plan and prepare for frosts and protect some small parts of our garden.

Understanding frost

1. Frost is worst in droughts. Why? It is because the soil becomes very dry. Dry soil has almost no water in it, and so it is easy for the soil to go from hot to cold¹ overnight.
2. Clouds and rain protect the land from frost.
3. No wind, starry nights during drought – these are the danger signs for frost.
4. If you have hot still days and dry weather, with no clouds, frost may fall three or more days in a row. Each night you must follow the steps below. First -

Prepare for frost

1. Choose kaukau mounds that are on hill slopes where you know from experience the frost damage has been minimal.
2. Choose mounds with early maturing kaukau. That way after frost you can take vines from these protected plants to replant elsewhere.
3. Water these mounds, even during a drought. That way the soil will be wet and it is much easier to stop those mounds from being killed by frost – you must still cover the plants.
4. Dry grass is not very effective at protecting plants from frost. The frost will go through the dry leaves and harm your crop.
5. You must store in your house - newspaper, cardboard, sel bilong lotu (large tarpaulins), and be ready to use them and

even jackets, blankets, bed sheets to cover kaukau mounds at night before the frost falls.

6. Keep large water containers. Let them warm up in the sun during the day (Or heat water in your cooking house to fill them with on a very cold night).

Hot day, no wind, lots of stars, no clouds??

1. You must go outside each night, about 9 pm to test how cold and still it is.
2. If it is a biting cold, on nose, finger, toe –
3. Put warm water in a large container in middle of the kaukau mound. If you don't have water containers – just use the covers. Water and rocks will help to hold the heat around your plants – kaukau, potato.
4. Now cover your already chosen mounds with newspaper, spread it out, put cardboard on top. Next mound – use bed sheets, then blankets, jackets, any cloth or plastic sheets, pig feed sacks. You must sleep by the fire, because all your warm blankets are saving the life of your garden!
5. A church tarpaulin will be very helpful as a large cover.
6. If you have dry grass put the dry grass on the plants then put the paper or bed sheets on top.
7. Remove when the frost has melted. If there wasn't a frost, at least you were well prepared. Gutpela.

Dr Dave Askin,
dave@getsready.net

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¹ Technically this is called latent heat of water. It takes a lot of firewood to boil water – to make it hot. Likewise it takes a lot of energy to cool water.