



agriculture
& rural development

Department:
agriculture & rural development
PROVINCE OF KWAZULU-NATAL

IRRIGATION MODULE

LET'S MAKE AGRICULTURE OUR CULTURE



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IRRIGATION MODULE

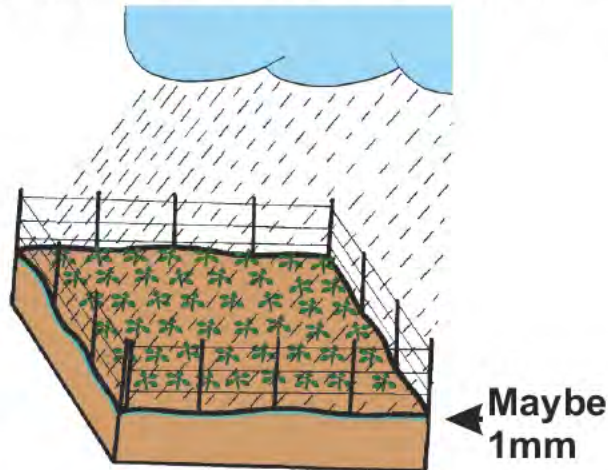
LET'S MAKE AGRICULTURE OUR CULTURE

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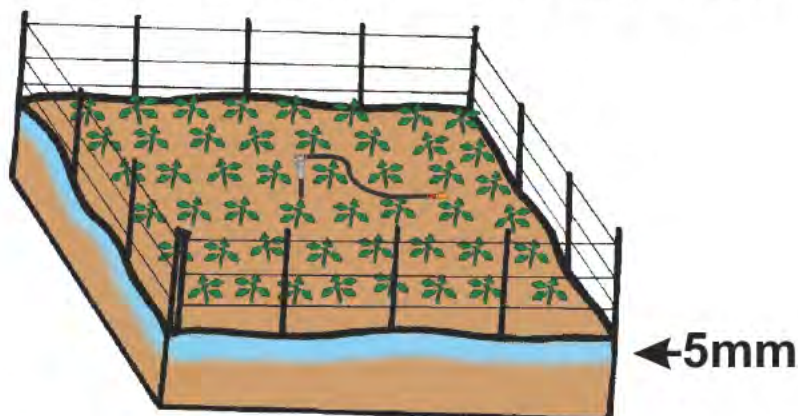
WATER REQUIREMENTS OF PLANTS



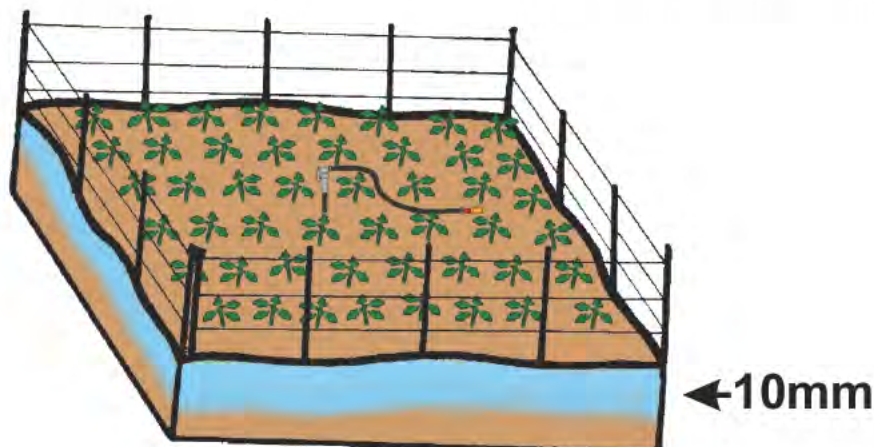
**ALL PLANTS NEED WATER TO GROW.
RAINFALL CANNOT SUPPLY ALL THE WATER NEEDED.**



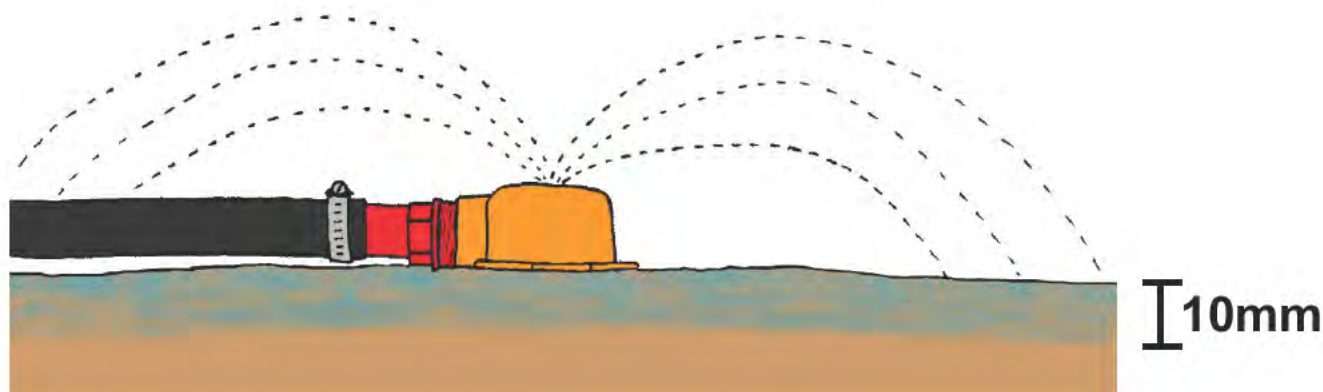
**IRRIGATION IS USED TO SUPPLEMENT THE RAIN WATER.
VEGETABLE CROPS NEED 5mm OF WATER EVERY DAY.**



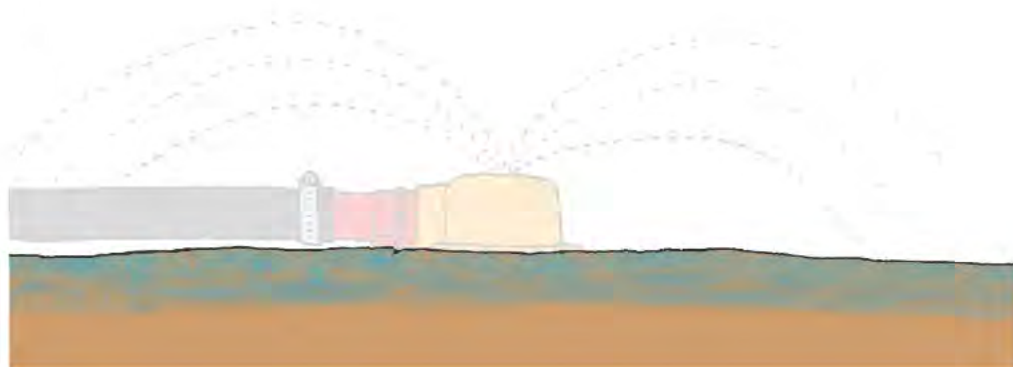
IF WE APPLY 10mm, IT WILL BE ENOUGH FOR TWO DAYS.



A SPRINKLER TAKES 20 MINUTES TO APPLY 10mm OF WATER.



THEREFORE THE SPRINKLER MUST BE MOVED EVERY 20 MINUTES.



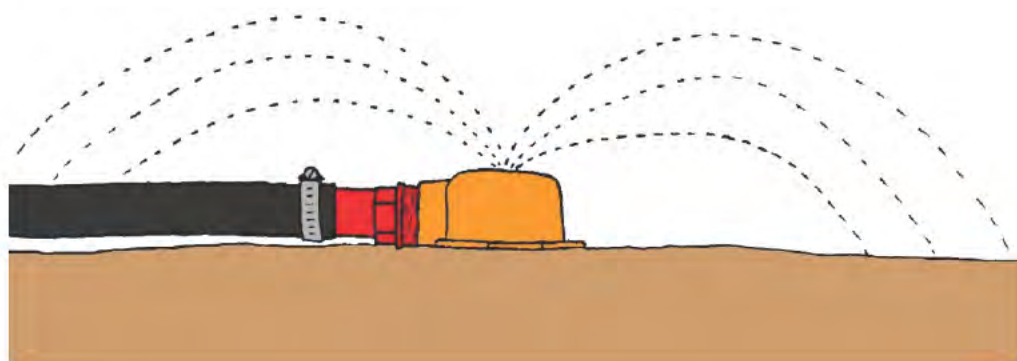
20 MINUTES



MOVE



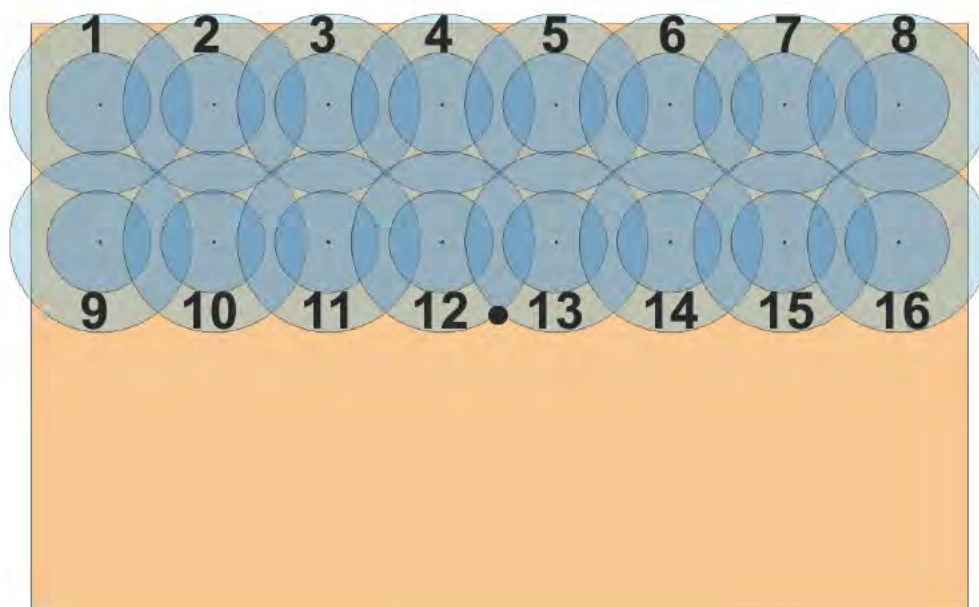
**WAIT
20 MINUTES**



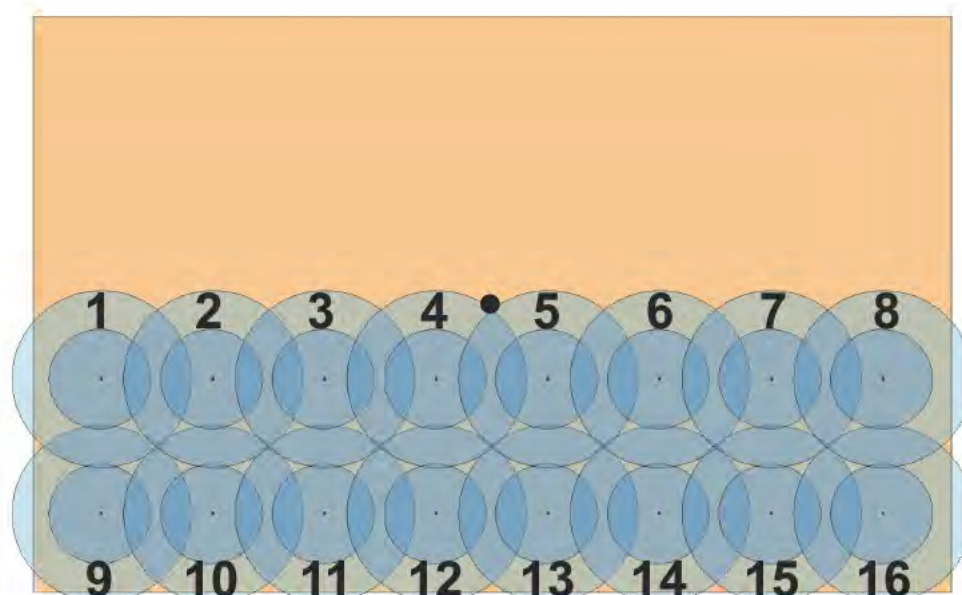
PATTERN OF APPLICATION (1)



EACH SPRINKLER MUST BE MOVED 16 TIMES IN ONE DAY.



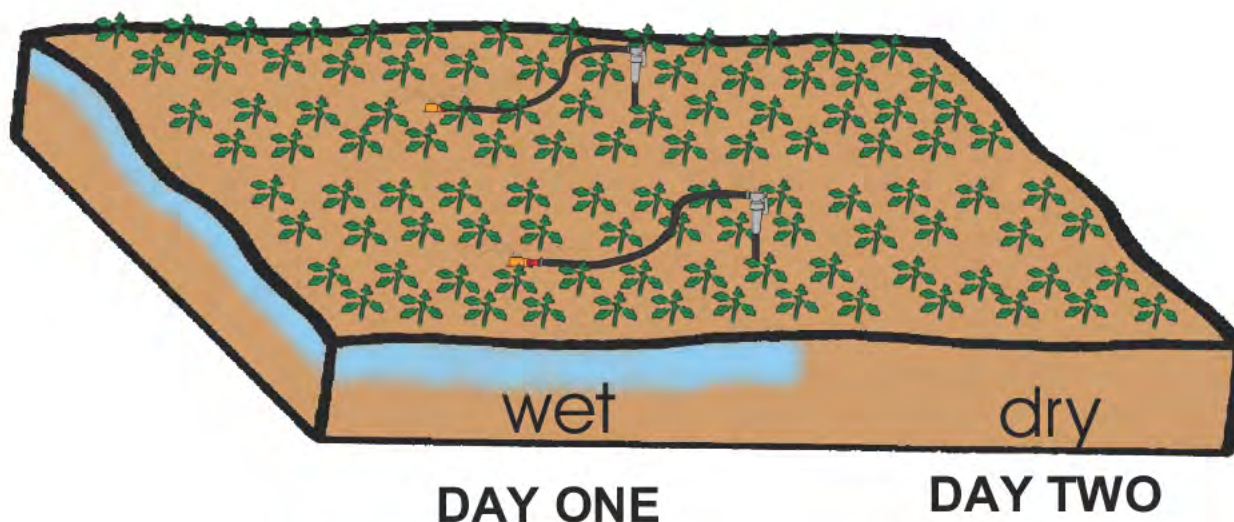
ON THE SECOND DAY, THE OTHER 16 POSITIONS ARE IRRIGATED.



PATTERN OF APPLICATION (2)

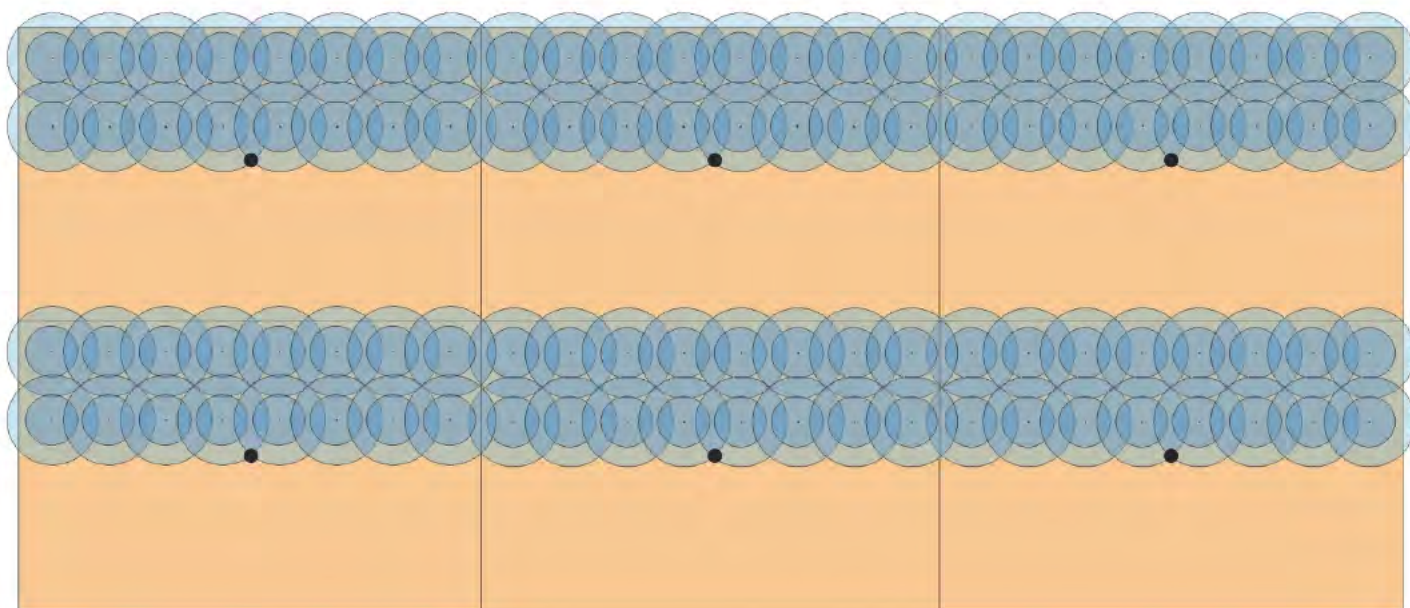


HALF THE GARDEN IS DONE THE FIRST DAY AND THE OTHER HALF THE NEXT DAY.



ON THE THIRD DAY THE IRRIGATION STARTS AGAIN.

THE PATTERN WE GET WHEN HALF THE GARDEN IS WETTED ON THE FIRST DAY.



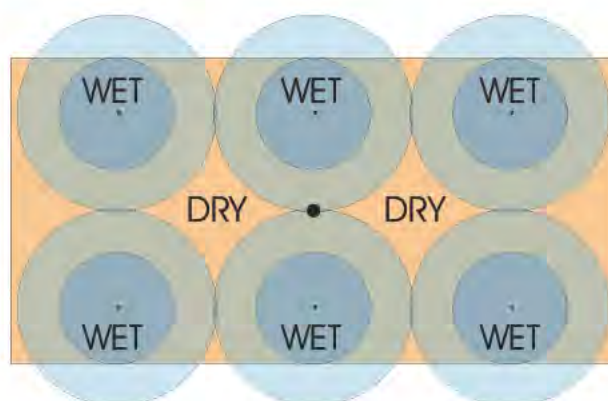
PATTERN OF APPLICATION (3)



THE SPRINKLER APPLIES WATER IN A CIRCLE OF 6m IN SIZE.

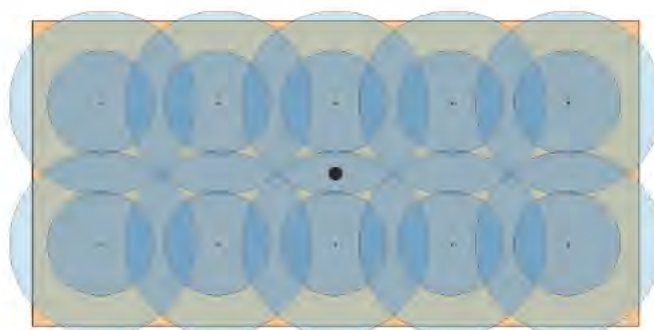


IF THE SPRINKLER IS MOVED 6m, DRY SPOTS ARE LEFT.



DRY spots

TO PREVENT DRY SPOTS, THE SPRINKLER SHOULD BE MOVED 5m, TO GET AN OVERLAP.



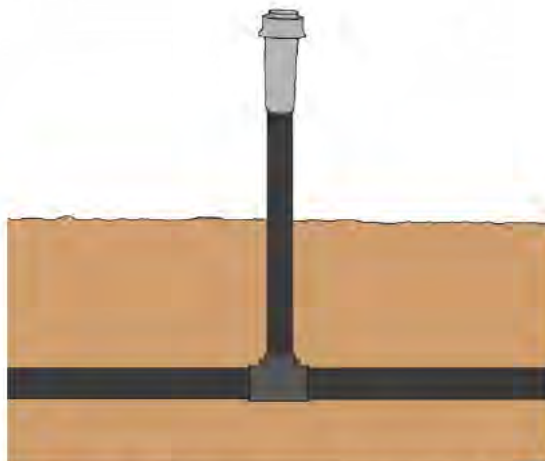
NO DRY SPOTS

THE SPRINKLER IS ALWAYS MOVED 5m FROM THE PREVIOUS POSITION, MOVING IN A STRAIGHT LINE.

THE HYDRANTS

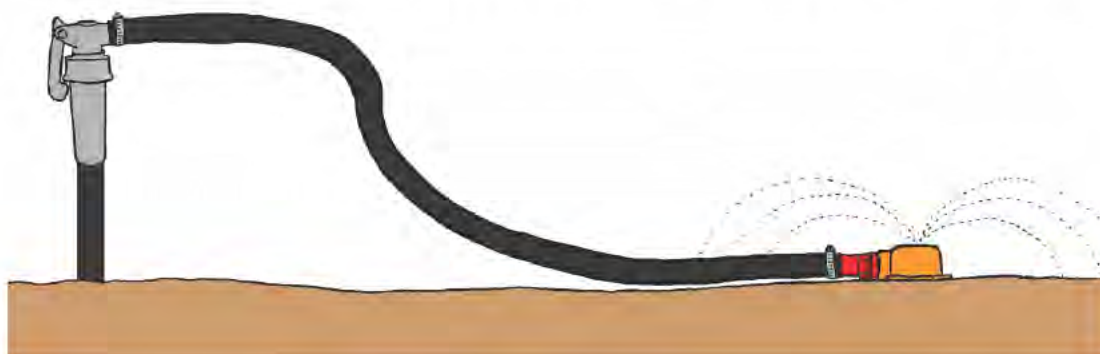


HYDRANTS ARE CONNECTED TO UNDERGROUND WATER PIPES.

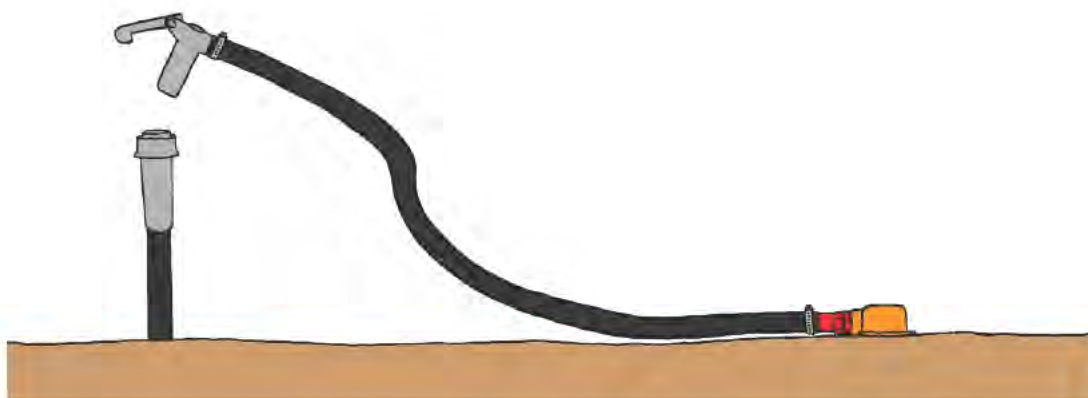


THE UNDERGROUND PIPES ARE DEEP ENOUGH TO ALLOW SAFE PLOUGHING.

WHEN THE PIPELET IS PUSHED INTO THE HYDRANT, IT OPENS AND WATER FLOWS DOWN THE HOSEPIPE.

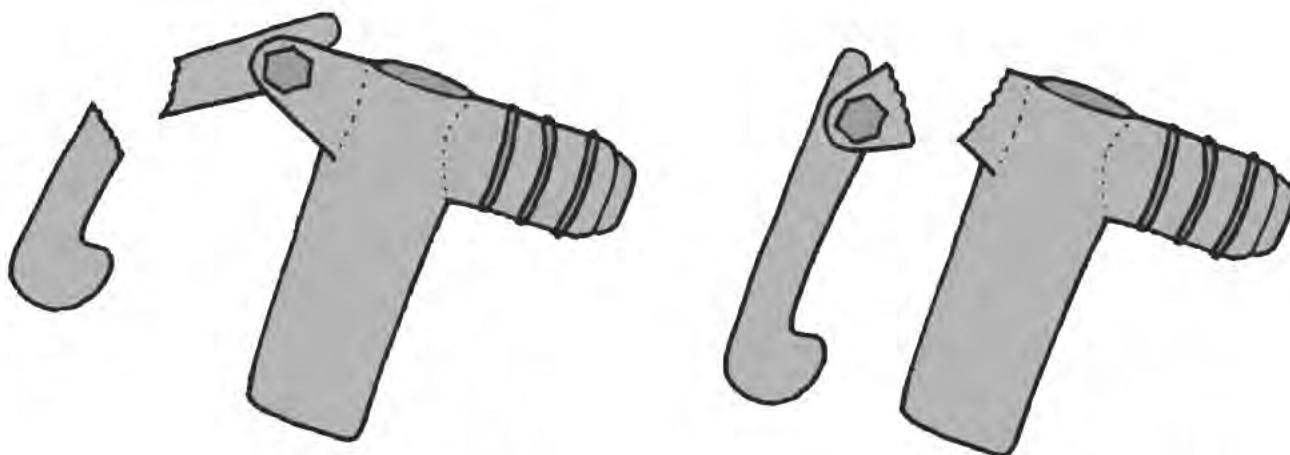


WHEN THE PIPELET IS DISCONNECTED, THE HYDRANT AUTOMATICALLY CLOSES THE WATER OFF.

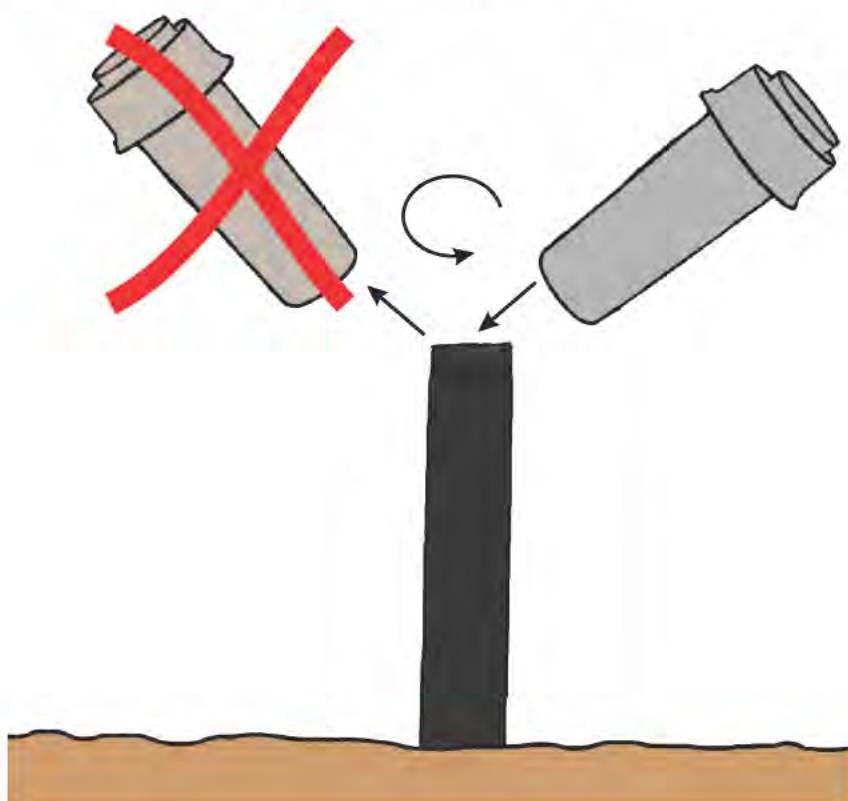


Ross

IF THE HOOK OR THE PIPELET BREAKS, IT MUST BE REPLACED.



IF THE HYDRANT LEAKS, IT MUST BE UNSCREWED FROM THE STANDPIPE AND REPLACED.



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