



agriculture & rural development

Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL

Potato production



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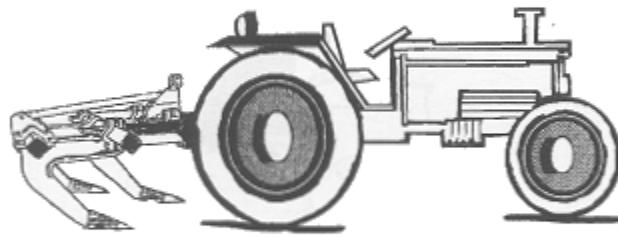
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Preparing the land for potatoes

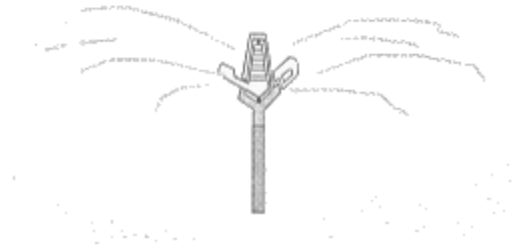
1. Take soil samples for detecting the presence of nematodes



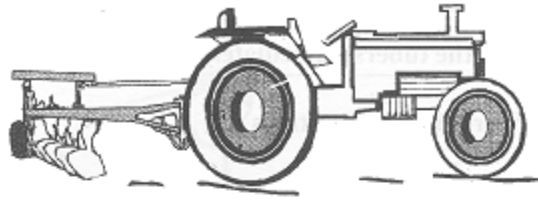
2. It may be necessary to rip the field



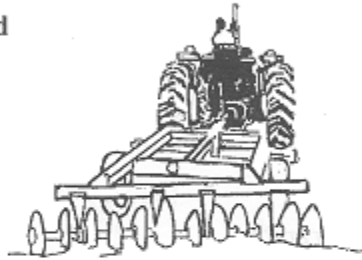
3. Irrigate the land if necessary



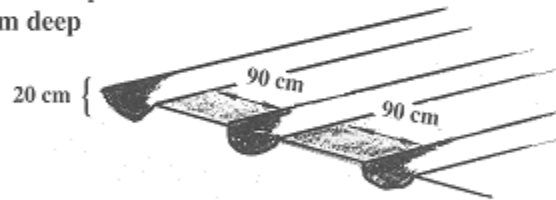
4. Turn up (plough) the soil in the field



5. Disc the field



6. Draw furrows 90 cm apart and about 20 cm deep



7. Apply fertiliser using the tin-and-rope method

(see inside of back cover page)

Ask your extension officer
how the method works



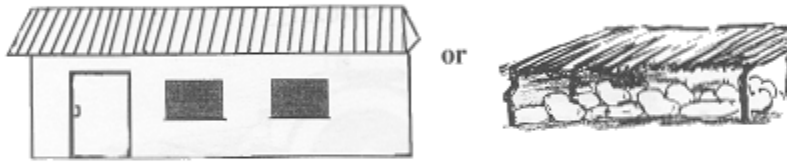
Preparation of tubers

Store the tubers immediately before planting

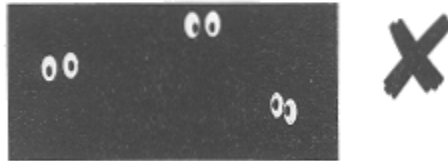
Store them under trees



or in stores



Do not store in total darkness



Tubers must sprout before planting



Fertilize and plant the potato tubers

1. Do a soil analysis if possible

It is best to apply fertiliser during planting



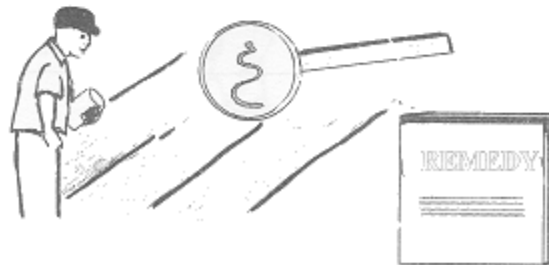
Use ±8 bags of MAP + 4 bags of KCL fertiliser per hectare



2. Cover the fertiliser with a thin layer of soil, using a hoe



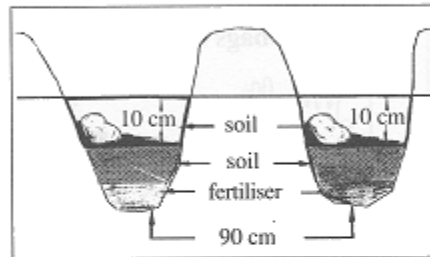
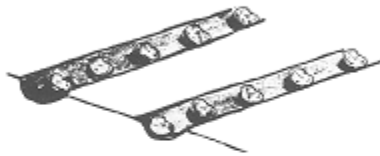
3. Apply a pesticide if nematodes are present



4. Place the potato tubers in furrows



5. Put them in rows and leave enough space for each



Potatoes that are bigger than a matchbox need a spacing of about 40 cm



bigger



Leave a space of 30 cm if potatoes are the same size as a matchbox



same size



If potatoes are smaller than a matchbox, then a space of about 20 cm should be left



smaller

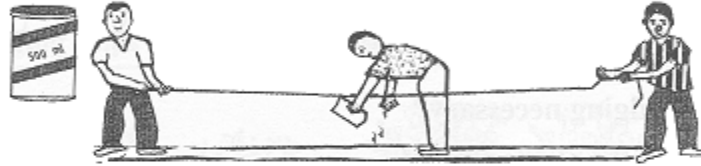


6. Cover the potato tubers with soil and water them a little, otherwise they may rot



7. Irrigate the plants after emerging on a regular basis

8. Topdress the potatoes 5 weeks after planting and before ridging, using the tin-and-rope method



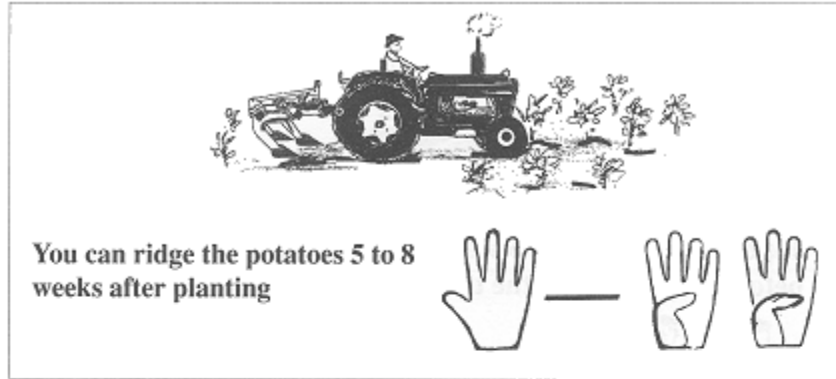
How much to use:

4 bags LAN			+	2 bags 1:0:1		
OR						
2 bags UREA			+	2 bags 1:0:1		

9. Leave the potatoes in the soil and do not lift or eat them within a period of 120 days (4 months).

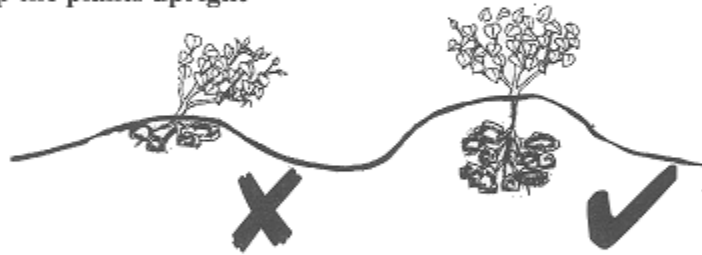


Ridging the potato crop



Why is ridging necessary?

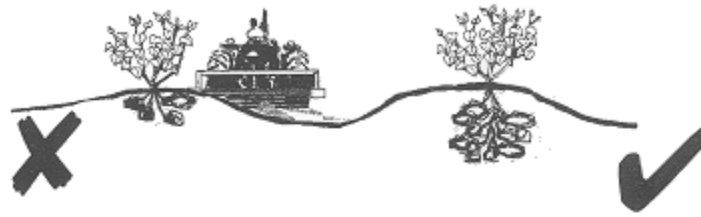
1. To keep the plants upright



2. To prevent potato tuber moth from reaching the tubers



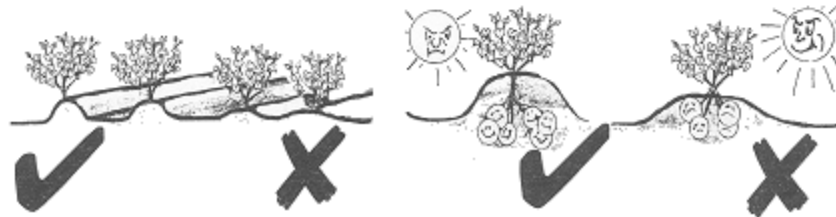
3. To make lifting of potatoes easier



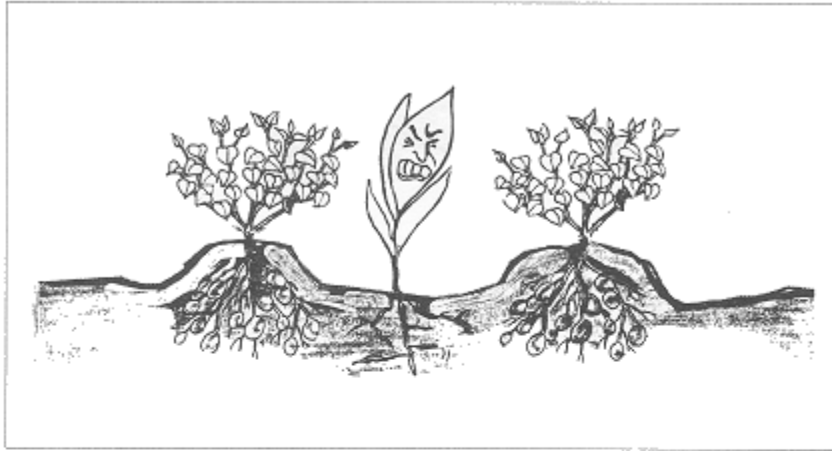
4. Ridging helps control weed growth



5. It also incorporates fertiliser into the soil and prevents sun damage



Controlling weeds



Weeds can be removed by:

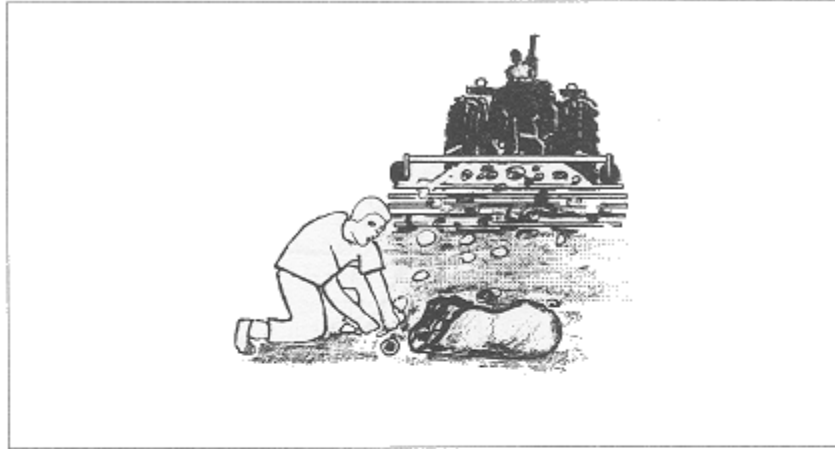
1. chemical methods



2. ridging, or a hoe



Harvesting



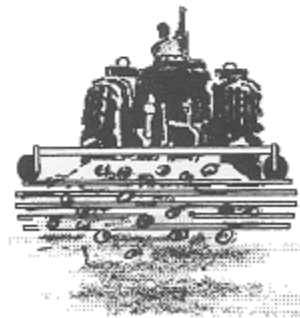
You can harvest potatoes:

16 to 20 weeks after planting

OR



3 weeks after the foliage has died off



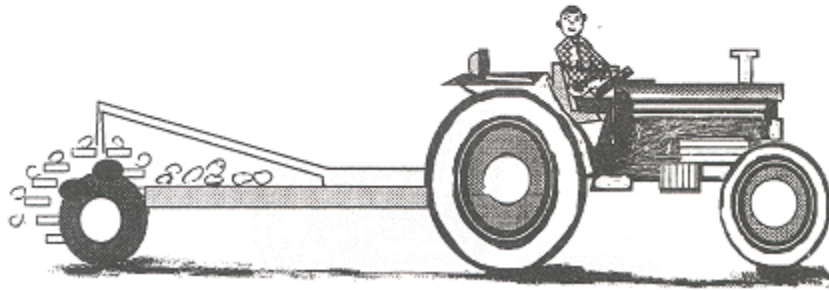
How to harvest

There are two methods:

1. You can harvest by hand



2. You can harvest mechanically



Tin-and-rope method

The table indicates the approximate rope length in metres at different row spacings, fertiliser product group and application rates that should be used in applying 500 m/ of fertiliser.

Hand application of fertiliser using a 500 m/ container

Row spacing	0,91 m (3'0")				1,00 m (3'3")				1,07 m (3'6")			
Product group	A	B	C	D	A	B	C	D	A	B	C	D
Application rate at kg/ha	Approximate rope length in metres over which distance the 500 m/ container must be emptied											
100	44,0	48,4	52,7	59,3	40,0	44,0	48,0	54,0	37,4	41,1	44,9	50,5
200	22,0	24,2	26,4	29,7	20,0	22,0	24,0	27,0	18,7	20,6	22,4	25,2
300	14,7	16,1	17,6	19,8	13,3	14,7	16,0	18,0	12,5	13,7	15,0	17,8
400	11,0	12,1	13,2	14,8	10,0	11,0	12,0	13,5	9,3	10,3	11,2	12,6
500	8,8	9,7	10,5	11,9	8,0	8,8	9,6	10,8	7,5	8,2	9,0	10,1
600	7,3	8,1	8,8	9,9	6,7	7,3	8,0	9,0	6,2	6,9	7,5	8,4
700	6,3	6,9	7,5	8,5	5,7	6,3	6,9	7,7	5,3	5,9	6,4	7,2
800	5,5	6,0	6,6	7,4	5,0	5,5	6,0	6,8	4,7	5,1	5,6	6,3
900	4,9	5,4	5,9	6,6	4,4	4,9	5,3	6,0	4,2	4,6	5,0	5,6
1 000	4,4	4,8	5,3	5,9	4,0	4,4	4,8	5,4	3,7	4,1	4,5	5,0
Row spacing	1,22 m (4'0")				1,37 m (4'6")				1,52 m (5'0")			
100	32,8	36,1	39,3	44,3	29,2	32,1	35,0	39,4	26,7	29,3	32,0	36,0
200	16,4	18,1	19,7	22,1	14,6	16,1	17,5	19,7	13,3	14,7	16,0	18,0
300	10,9	12,0	13,1	14,8	9,7	10,7	11,7	13,1	8,9	9,8	10,7	12,0
400	8,2	9,0	9,8	11,1	7,3	8,0	8,8	9,9	6,7	7,3	8,0	9,0
500	6,6	7,2	7,9	8,9	5,8	6,4	7,0	7,9	5,3	5,9	6,4	7,2
600	5,5	6,0	6,6	7,4	4,9	5,4	5,8	6,6	4,4	4,9	5,3	6,0
700	4,7	5,2	5,6	6,3	4,2	4,6	5,0	5,6	3,8	4,2	4,6	5,1
800	4,1	4,5	4,9	5,5	3,6	4,0	4,4	4,6	3,3	3,7	4,0	4,5
900	3,6	4,0	4,4	4,9	3,2	3,6	3,9	4,4	3,0	3,3	3,6	4,0
1 000	3,3	3,6	3,9	4,4	2,9	3,2	3,5	3,6	2,7	2,9	3,2	3,6

A	B	C	D
UREA 1:0:1 (48) 1:0:1 (36) 4:1:0 (40)	LAN (28) ASN (27) 5:1:5 (45) 2:0:3 (49) 3:1:4 (44) + Zn 3:1:5 (45) 2:3:2 (30) 4:1:6 (45)	MAP (33) AM SULPHATE (21) POT CHLOR (50) 1:0:2 (49) 2:3:2 (22) + Zn 2:3:4 (30)	SUPERS (10,5) AM SUPERS (16)