



agriculture & rural development

Department:
agriculture
& rural development
PROVINCE OF KWAZULU-NATAL

Green bean production



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Types of beans

There are two kinds of green beans

Runner beans



Trellising needed

Bush types

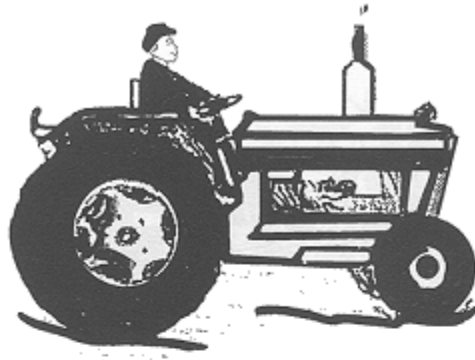


No trellising needed

Cultivars

Runner beans	Bush types
Witsa Lazy Housewife	Champ Contender Derby Espada Provider Wintergreen Rambo

Land preparation

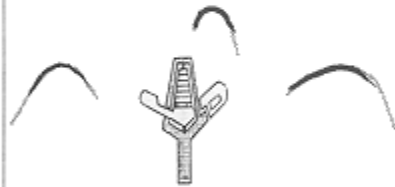


Prepare the soil for green beans by ripping if necessary, irrigating, ploughing and discing

1 Rip



2 Irrigate



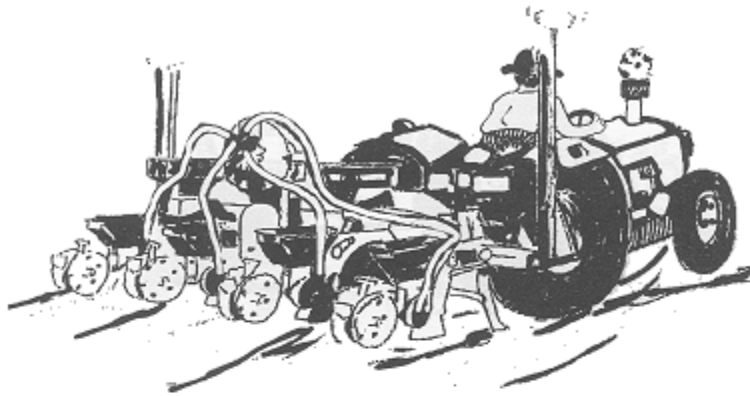
3 Plough



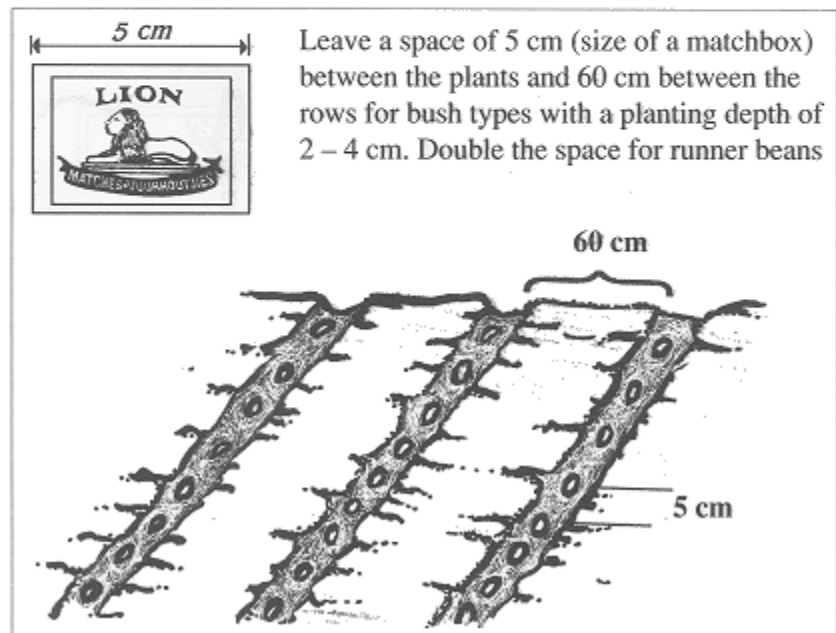
4 Disc



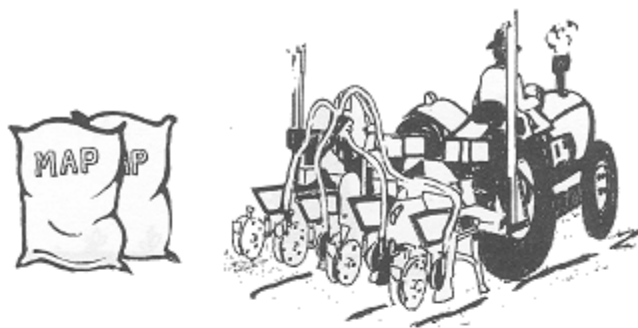
Planting



Plant green beans with a planter or by hand



Fertilizing

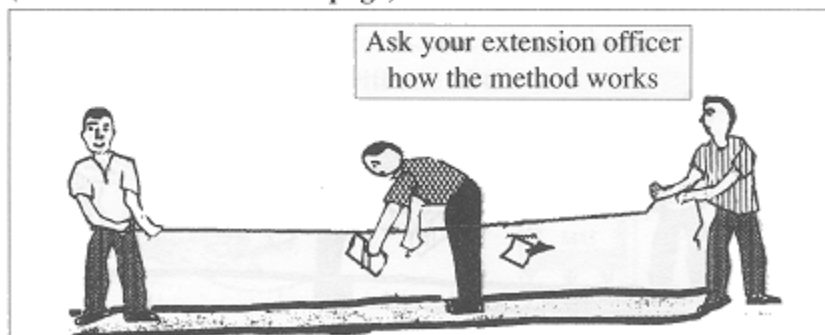


Do a soil analysis if possible. Fertilise by using a planter during the planting procedure

Apply 10 to 20 bags of MAP fertiliser per hectare



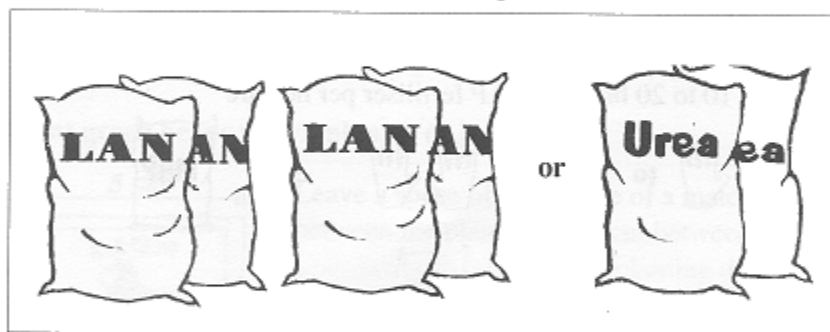
**Fertilise by topdressing using the tin-and-rope method
(see inside of back cover page)**



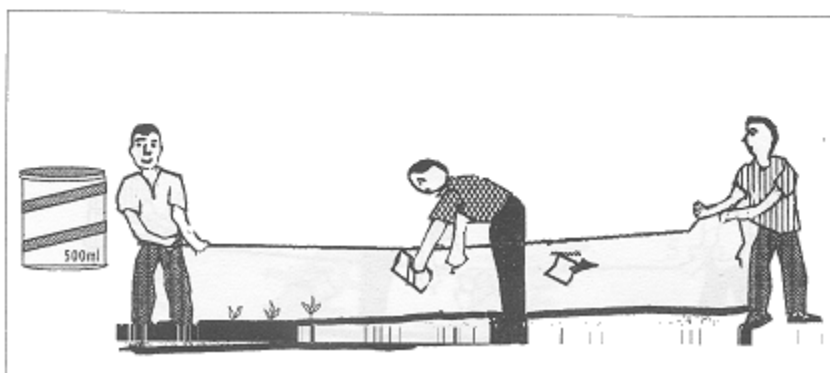
Topdress by hand with nitrogen 3 weeks after planting



Use 4 bags of LAN or 2 bags of UREA per hectare



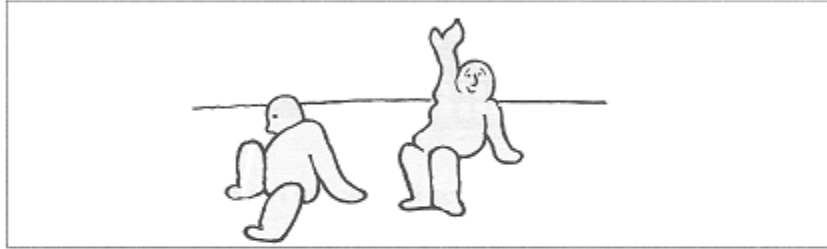
Use the tin-and-rope method when topdressing



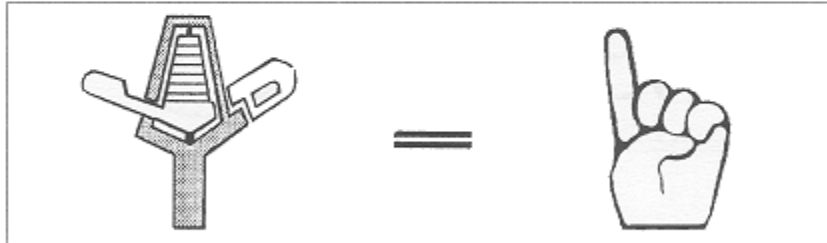
Irrigating



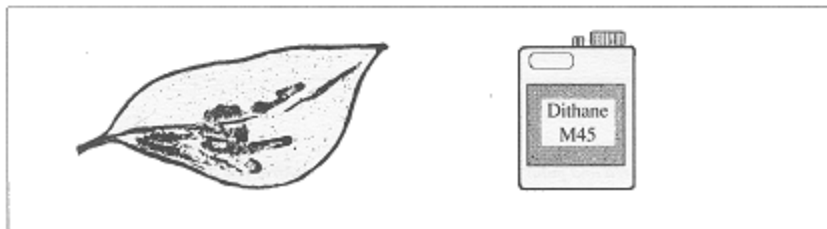
Irrigate before preparing the land and again after emergence of the seeds



Irrigate once a week



Spray leaves for rust with Dithane M45



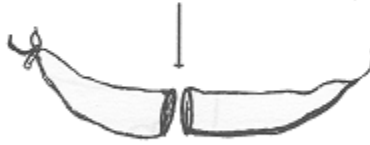
Harvesting

The bush types should be ready for harvesting 50 to 60 days after planting and the runner beans 2 to 3 weeks later

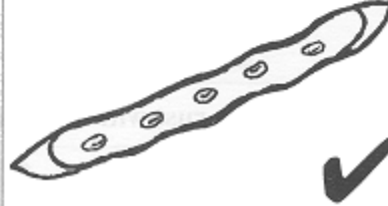
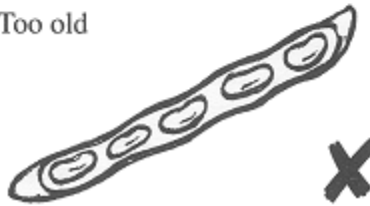


Cut the beans in half to find out if they are ready for harvesting

If bean breaks clean, it is ready



Too old



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^l of fertiliser.

Hand application of fertiliser using a 500 m^l 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 ^l 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)