



KNOWLEDGE TRANSFER

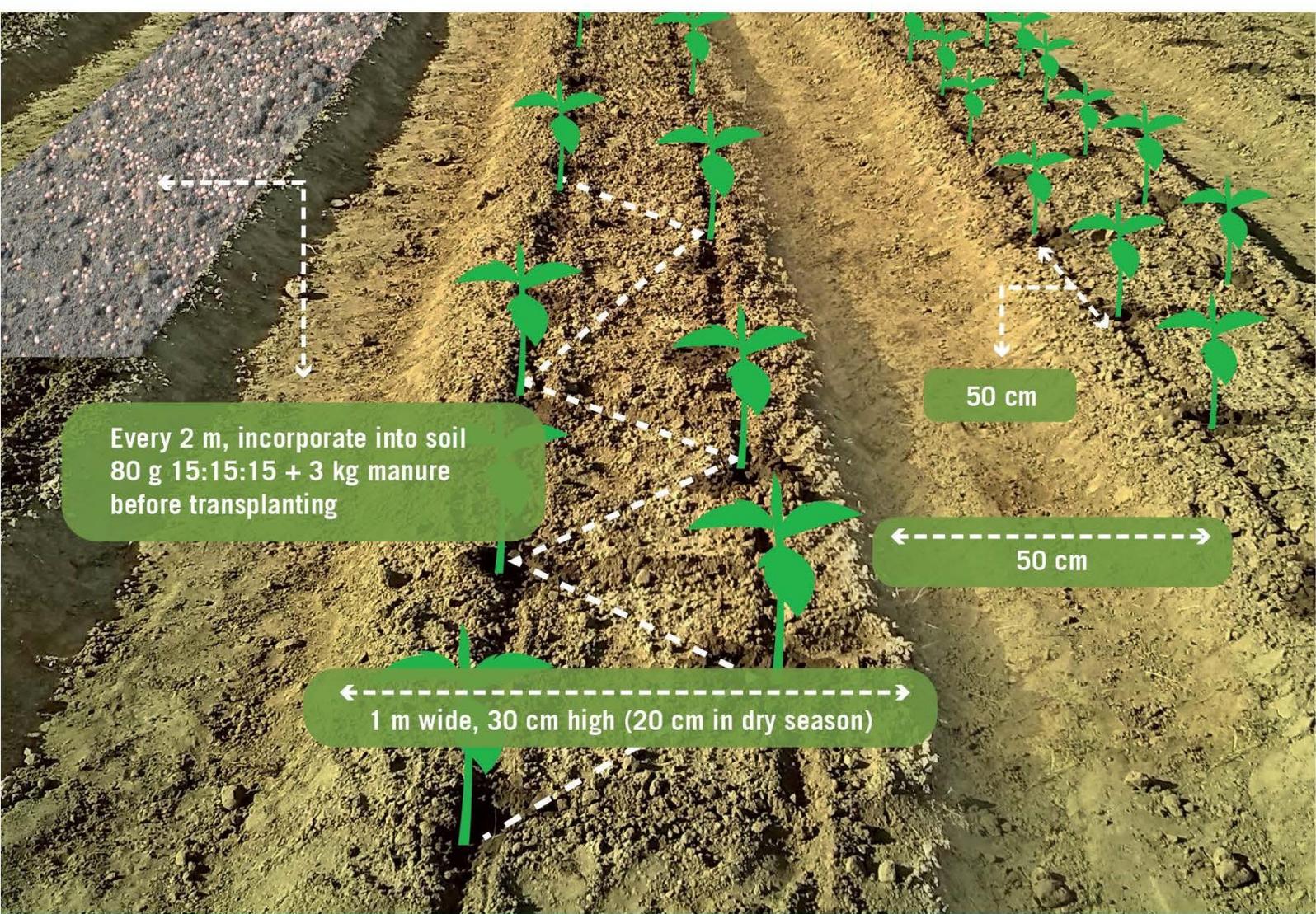
Crop Guide TOMATO



ENGLISH

• Land Preparation

- » Narrow paths help with irrigation and drainage
- » Organic or plastic mulch may be installed to conserve soil moisture and minimize weed growth
- » Install trellis 8-10 days after transplanting
- » 26,600 plants/ha (adjust according to the variety and season)

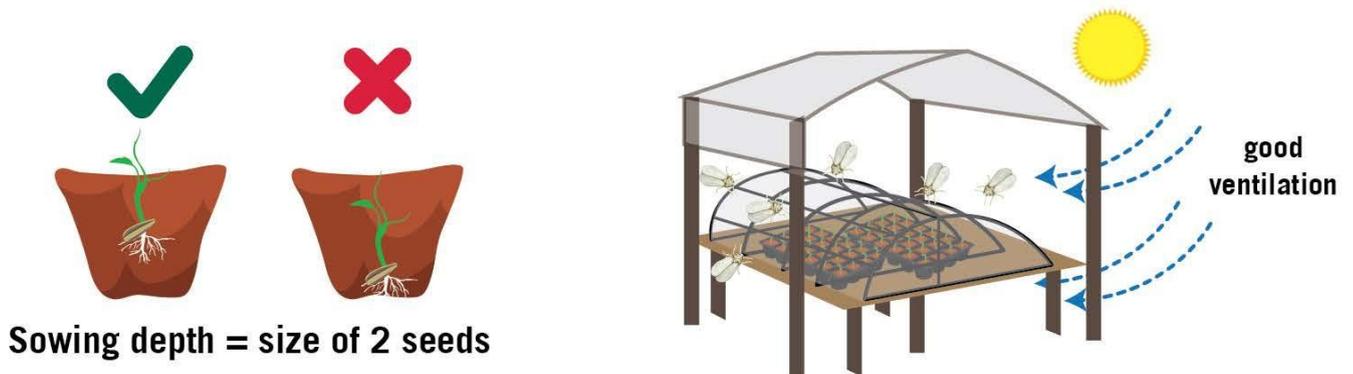


• Seedling Production

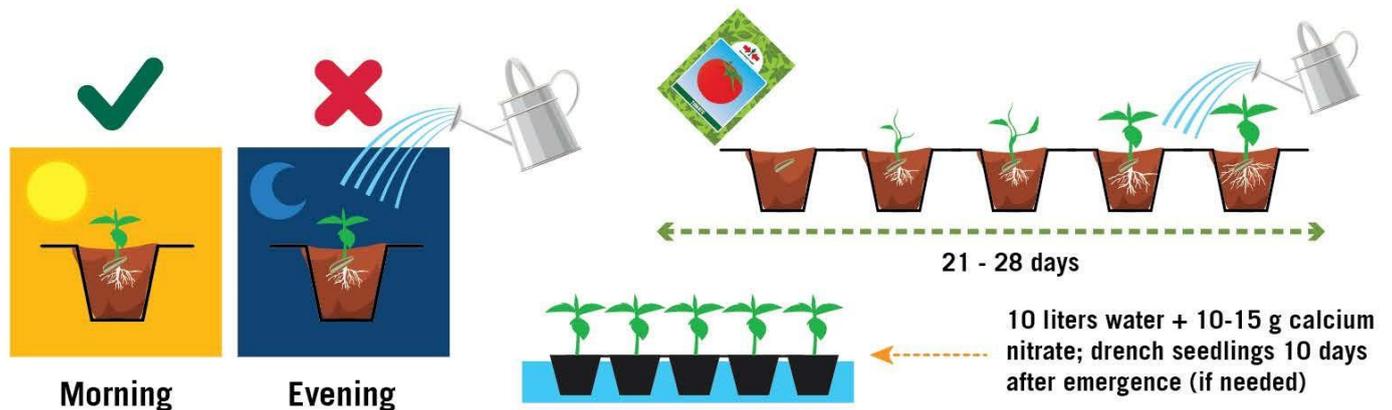
- ◆ Substrate preparation: Heat for 10 minutes or place in full sun for half a day, then fill tray



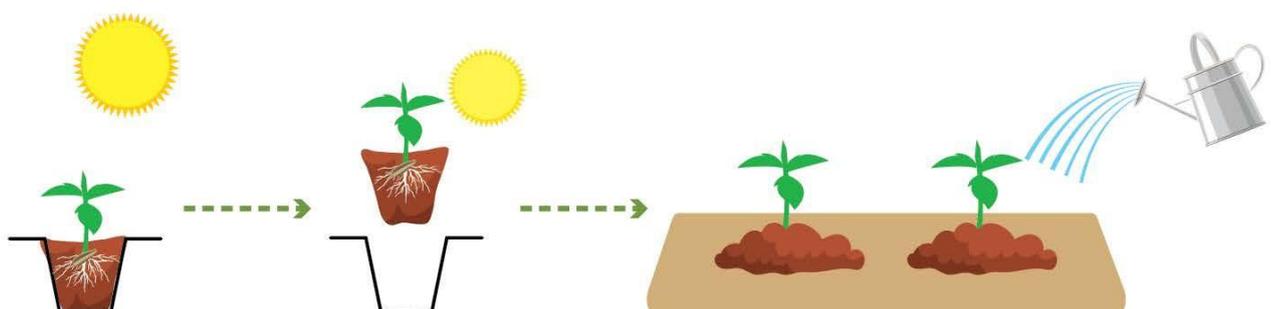
- ◆ Sow seeds and protect seedlings



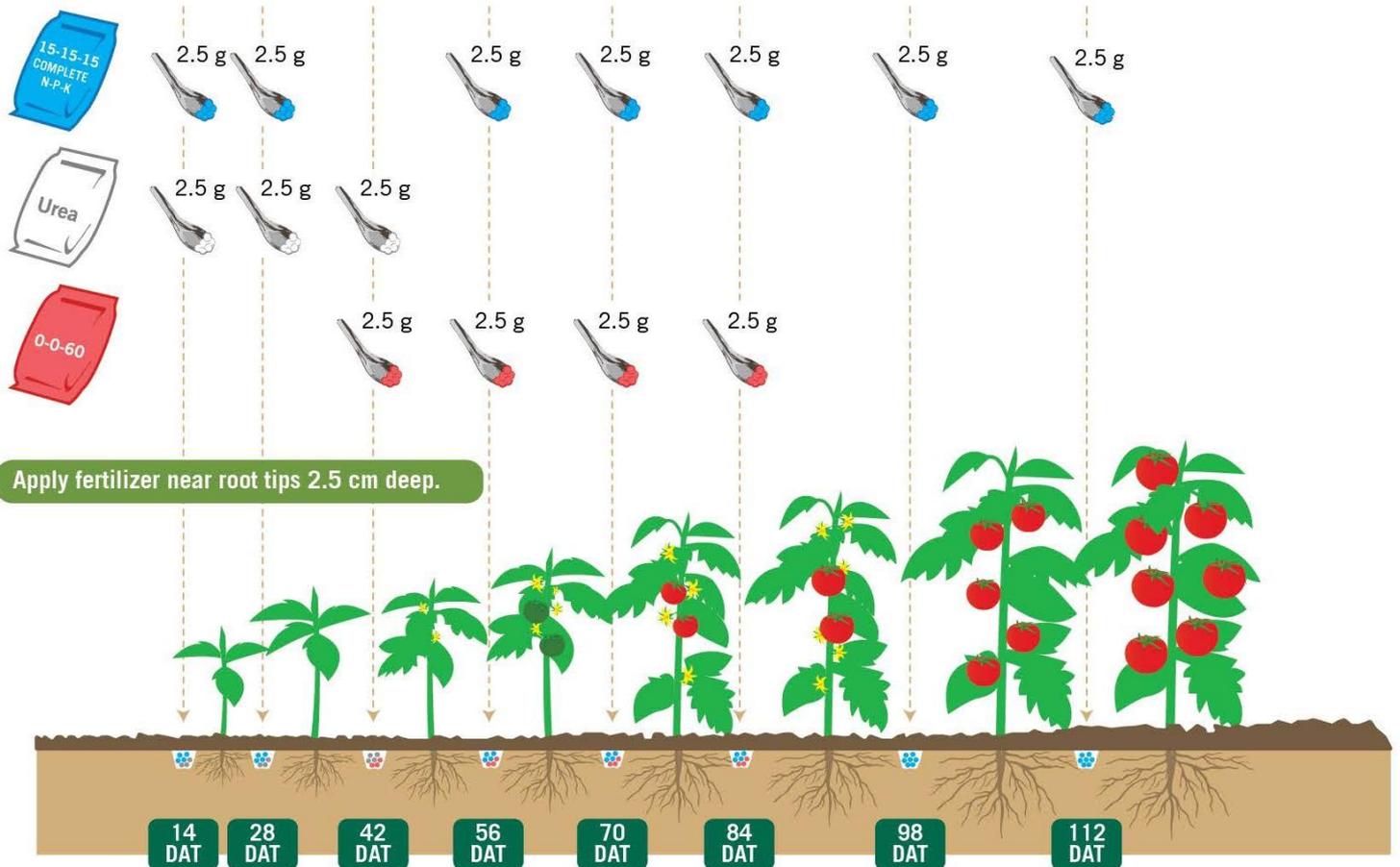
- ◆ Maintain constant moisture



- ◆ Reduce water and expose to more sun 5-7 days before transplanting late in the afternoon



• Fertilizer Application



Recommended amount based on crop optimum nutrient requirement and plant population of 26,600 per hectare. Adjust application according to season, soil conditions and plant growth status.

• Integrated Pest Management



» Use sticky traps to monitor and mass trap insect pests



To prevent infection from spreading, sick plants, old crops and weeds must be removed and destroyed.



Crop rotation prevents build up of insect pests and diseases and restores soil fertility.

• Integrated Pest Management and Safe Use of Pesticides

- » Alternate MoA groups to prevent resistance
- » Always read pesticide label and intended use (registered crop and pest)

Active Ingredient	MoA	Action	Kinds of Insects					
			Aphid	Whitefly	Caterpillar	<i>Tuta absoluta</i>	<i>Liriomyza</i>	Red Spider Mites
Lambda-cyhalothrin	3A	SC	✓	✓	✓	✓	✓	✓
Dinotefuran	4A	S	✓	✓			✓	
Spinosad	5	S			✓	✓	✓	
Spinetoram	5	SC			✓	✓	✓	
Abamectin	6	SC (slight S)			✓	✓	✓	✓
Thiocyclam oxalate	14	SC	✓	✓			✓	
Chlorantraniliprole	28	S			✓	✓		
Flubendiamide	28	S			✓	✓		
<i>Bacillus thuringiensis</i>	11A	C			✓	✓		
<i>Azadirachtin (neem extract)</i>	UN	unknown	✓	✓	✓	✓	✓	✓

Mode of Action (MoA) based from IRAC; SC (Stomach + Contact); S (Systemic)

Active Ingredient	MoA	Action	Remarks	Kinds of Diseases					
				Late Blight	Early Blight	Bacterial Spot	Bacterial Wilt	Mosaic Virus	Leaf Curl Virus
Copper-based Fungicides	M 01	P	For bacterial diseases: Use only when necessary; do not overuse to avoid potential resistance build up	✓	✓	✓	✓		
Chlorothalonil	M 05	P		✓	✓				
Mancozeb	M 03	P		✓	✓				
Azoxystrobin	11	P + C	Maximum 4 times per crop cycle	✓				Avoid smoking in the field	Manage whitefly
Propamocarb	28	P + C		✓					
Cymoxanil	27	C	Tank mixed with preventive (Chlorothalonil or Mancozeb)	✓					
Metalaxyl	4	P + C	High risk of resistance (only use 2 times per season)	✓					
<i>Bacillus subtilis</i>	BM02	P		✓	✓	✓	✓		

Use resistant varieties or disease-free seedlings

Mode of Action (MoA) based from FRAC; P = preventive (only effective when disease symptoms have not appeared yet), C = curative

-  Wear protective gear
-  Good weather
-  Good nozzle
-  Wash after spraying

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Agrochemical recommendations have been developed in cooperation with Wageningen University & Research