Version 2021

EAST-WEST SEED FOUNDATION

KNOWLEDGE TRANSFER

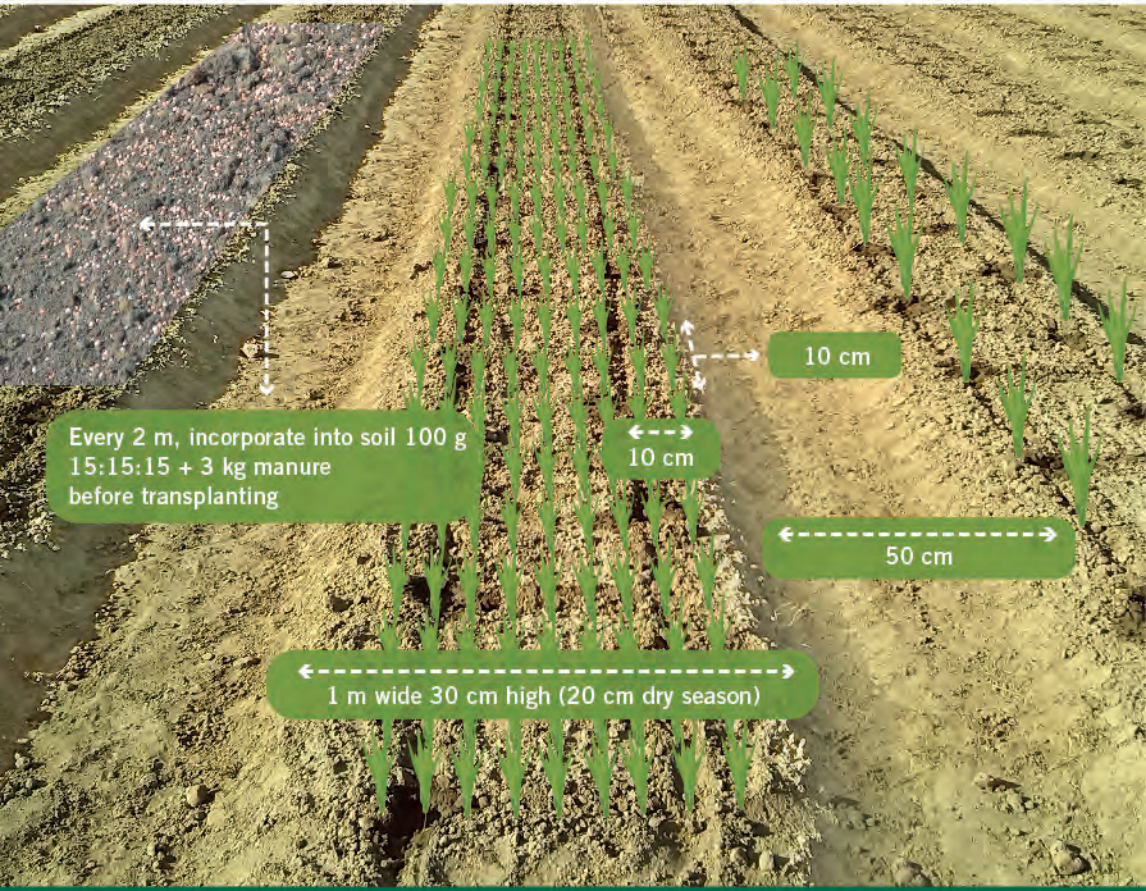
Crop Guide
ONION

• Land Preparation

» Narrow paths help with irrigation and drainage

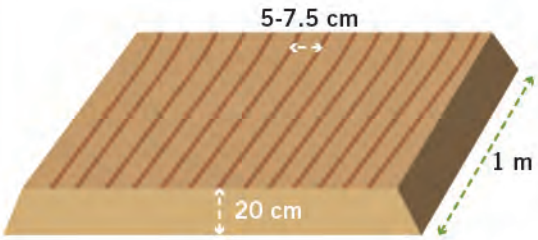
» 600,000 plants/ha (adjust according to the variety and season)

ENGLISH



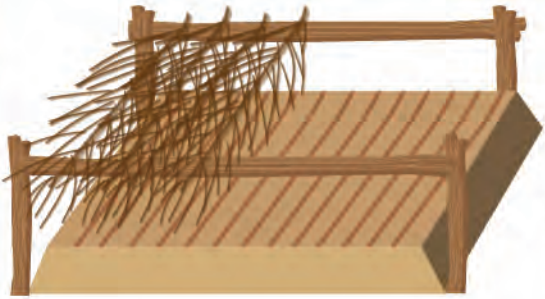
• Seedling Production

◆ Substrate preparation: For 0.1 acre of onion crop, need 40 m2 of seedbed

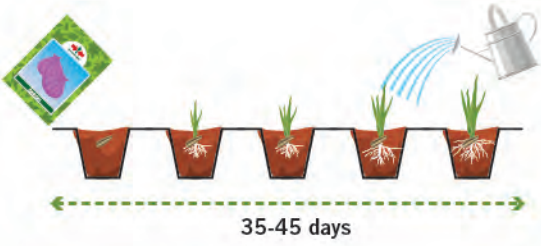


» Prepare raised beds
» Every 2 m, incorporate into soil 100 g 15:15:15 + 3 kg manure before sowing
» Mix 4 liters water with 1 tbsp fungicide + 1 tbsp insecticide and spray
» Make rows 5-7.5 cm apart, 1.5 cm deep
» Protect from sun until emergence, then protect during hottest time of the day
» Monitor seedbed everyday

Cover with plastic in case of heavy rain



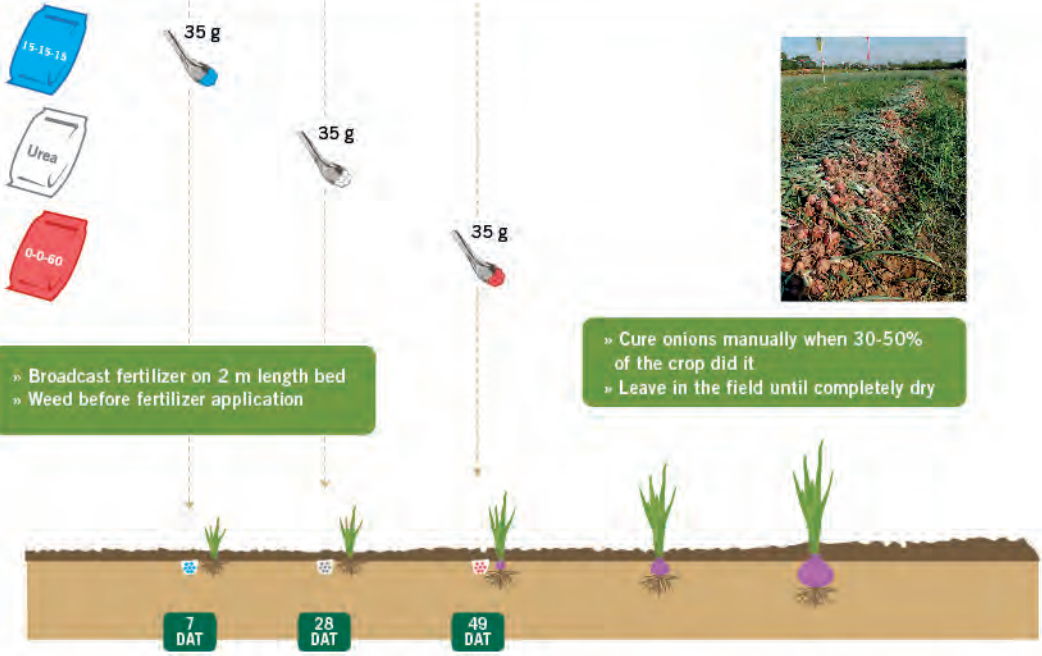
◆ Maintain constant moisture



◆ Water in morning, use a small hoe to dig seedlings

Seperate and plant seedlings 2.5 cm deep; water immediately after transplanting.

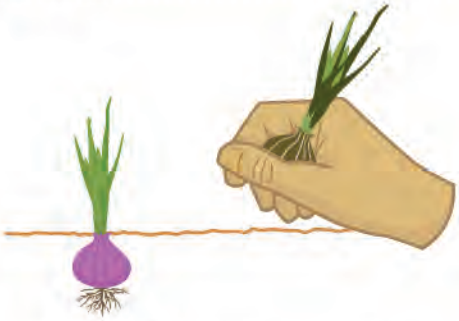
• Fertilizer Application



Recommended amount based on crop optimum nutrient requirement and plant population of 600,000 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
» Use sweet trap or light trap for caterpillar



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)

Kinds of Insects

Thrips

Caterpillar

Leafminer

Active Ingredient	MoA	Action	Thrips	Caterpillar	Leafminer
Lambda-cyhalothin	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		✓	
Bacillus thuringiensis	11A	C		✓	
Azadirachtin (neem extract)	UN	unknown	✓	✓	✓

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

Kinds of Diseases

Anthracnose

Pink Roots

Stemphylium Leaf Blight

Purple Blotch

Bacterial Soft Rot

Active Ingredient	MoA	Action	Remarks	Anthracnose	Pink Roots	Stemphylium Leaf Blight	Purple Blotch	Bacterial Soft Rot
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	Maximum 4 times per crop cycle	✓	Use resistant varieties or disease-free seedlings	✓	✓	No effective curative spray
Azoxystrobin	11	P + C		✓		✓	✓	Manage with preventive measures like raising bed, crop rotation and sanitation
Propamocarb	28	P + C					✓	
Cymoxanil	27	C	Tank mixed with preventive (Chlorothalonil or Mancozeb)				✓	Avoid overhead irrigation
Metalaxyl	4	P + C	High risk of resitance (only use 2 times per season)				✓	
Bacillus subtilis	BM02	P		✓	✓	✓	✓	✓

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

1 

Wear protective gear

2 

Good weather

3 

Good nozzle

4 

Wash after spraying

https://growhow.eastwestseed.com

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

WAGENINGEN UNIVERSITY & RESEARCH