

DUS GROWING TEST OF TOMATO

Cultivation and management



DUS tester: Nguyen Thai Ha
Email: Thaiha_dm@yahoo.com

THE PLACE TO CONDUCT DUS GROWING TEST OF TOMATO IN VIETNAM



**TU LIEM
STATION**

**VAN LAM
STATION**

**QUANG NGAI
STATION**

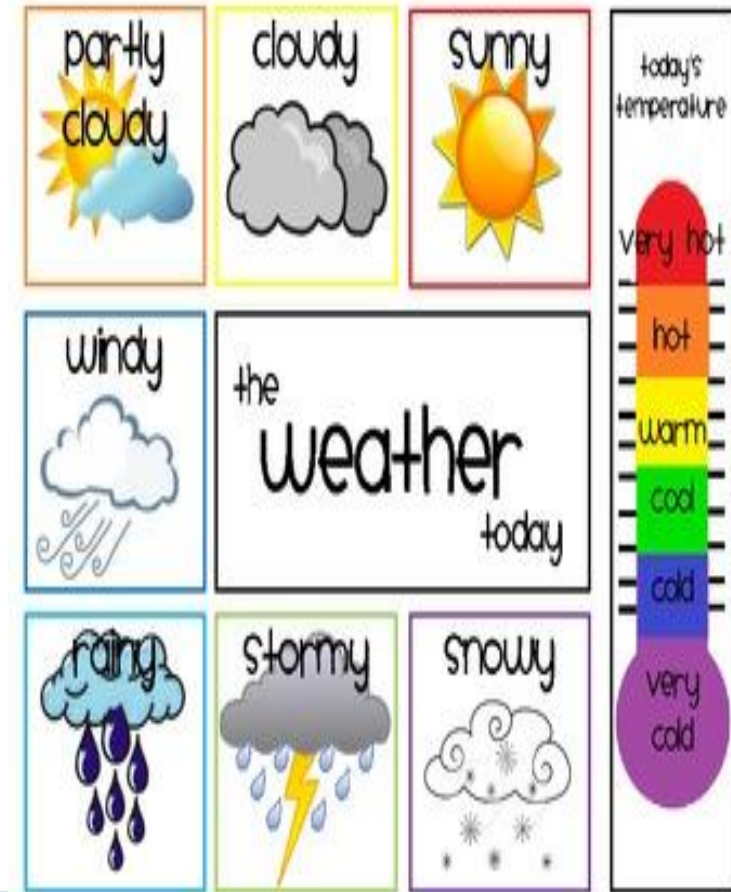
**BA RIA
STATION**



CULTIVATION AND MANAGERMENT

REQUIRE EXTERNAL CONDITIONS

- ✓ Temperature
- ✓ The light
- ✓ The moisture



CULTIVATION AND MANAGERMENT

Temperature	Less than 10°C	15°C	20°C - 30°C	35°C	More than 35°C
Tomato	Not good	OK	Good	OK	Not good

The Light	Less than 2000 lux	2000-4000 lux	4000-1000 lux
Time/day			11-13 hours
Tomato	Not good	OK	Good

The Humidity	Less than 30%	45-55%	60 -80%	more than85%
Tomato	Not good	Good	OK	Not good

CULTIVATION AND MANAGERMENT

REQUIREMENT ON SOIL

- ✓ Type of soil
- ✓ PH of soil
- ✓ Water



CULTIVATION AND MANAGERMENT

REQUIREMENT ON SOIL

✓ Type of soil

Tomatoes are relatively easy to plant. However, cultivation with alluvial soil is better, organic content greater than or equal to 1.5%, Should choose the soil rich in humus, porous, easy to drain and disease free. It is not advisable to plant tomatoes in the soil of previous are Solanaceae

CULTIVATION AND MANAGERMENT

REQUIREMENT ON SOIL

- ✓ PH of soil from slightly acid to slightly alkaline soils (PH=5.5-7.5). Most appropriate PH = 6.0 - 6.5

CULTIVATION AND MANAGERMENT

REQUIREMENT ON SOIL

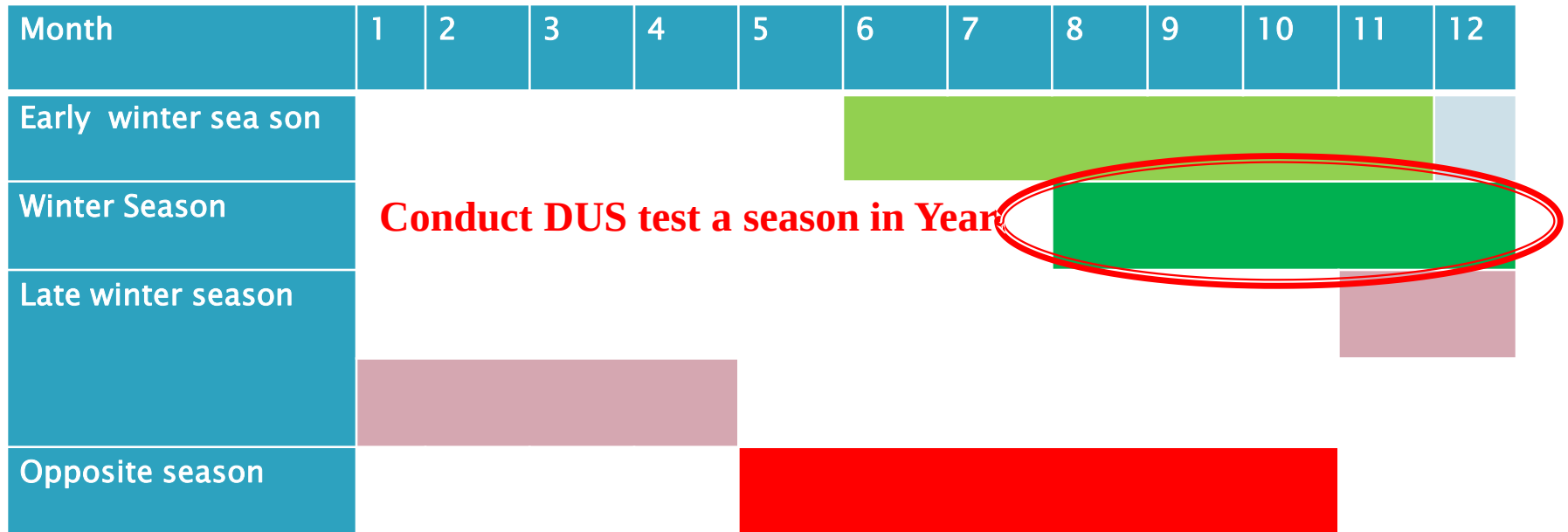
✓ Water

Tomato is a moisture-tolerant plant that does not tolerate waterlogging, the requirement for water at different stages is very different.

Flowering stage and fruiting stage needs the most water

DUS GROWING TEST OF TOMATO

Tomato growing season in vietnam



Material for sowing of seeds Tomato



Alluvial soil



Compost



Tray



Husk is burned



Nilon bag

Material for sowing of seeds Tomato

Alluvial soil



Husk is burned



Mixing (volume) for:

- Sowing : formula

40% Alluvial soil + 40% Compost + 20% Husk

- Transplanting (1): formula

70% Alluvial soil + 20% Compost + 10% Husk

Compost



Mixing



Sowing direct on the soil



Covered by nylon

Take care them to 3-4 true leafs



Covered by straw

appear cotyledons remove straw

Take care them to 3-4 true leafs

- Way 1: Tomato has 3-4 true leaf we can transplanting to nylon bag and keep on green house to 8-10 leafs transplanting to testing plots
- Way 2: Take care them on the open field when tomato has 8-10 leafs can transplanting to testing plots

Sowing direct on the tray



Transplanting (1)



Transplanting (2)



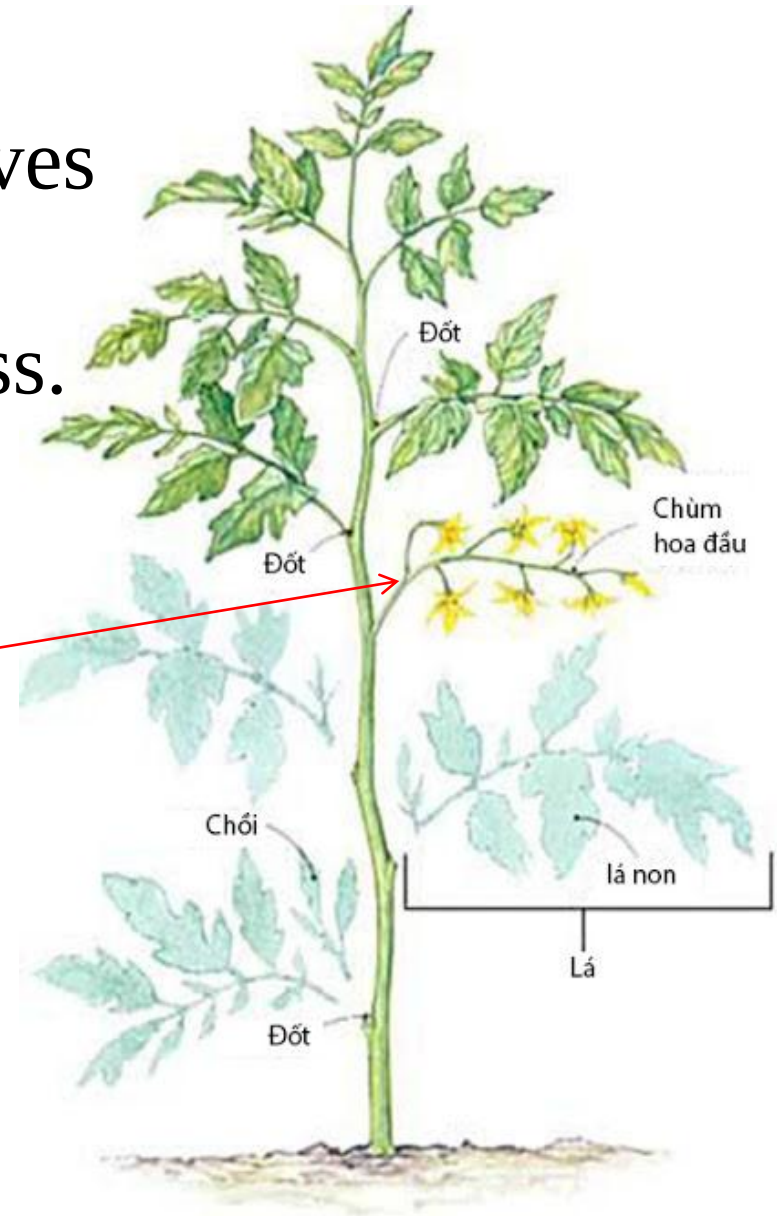
Appear first bunch



The time of planting

At the time of 8 – 10 true leaves
development
first flower opening of first truss.

Appear first bunch

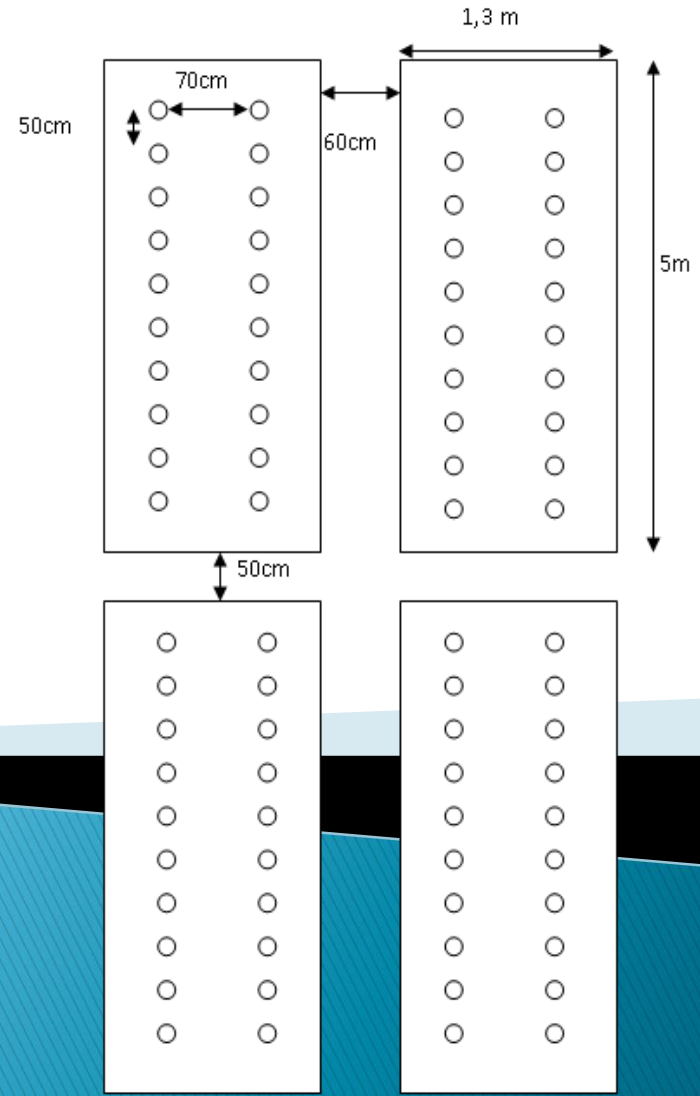


Plot size and number of plant

- Size of the plot: 5m x 1.3m
- Number of plant/plot: 20 plants; 2 Replicates / Variety
- Space

Plant to plant: 50 cm

Row to row: 70 cm



CULTIVATION AND MANAGERMENT

Fertilizer

- The amount of fertilizer (kg/ha):
 - + Organic fertilizer: 10 tons
 - + N: 100kg (Need to calculate the amount of pure Ure)
 - + P_2O_5 : 100kg (Need to calculate the amount of pure phosphas)
 - + K_2O : 120kg (Need to calculate the amount of pure kalyclorua)
- How to apply: (Formula)
 - Apply before planting: 100% organic fertilizer + 100% P_2O_5 + $1/3$ N
 - + First application: $1/3$ N + $1/2$ K_2O (after appear first fruit truss)
 - + 2nd application: $1/3$ N + $1/2$ K_2O (after harvest first fruit truss)

CULTIVATION AND MANAGERMENT

Supportting for plant

In Vietnam

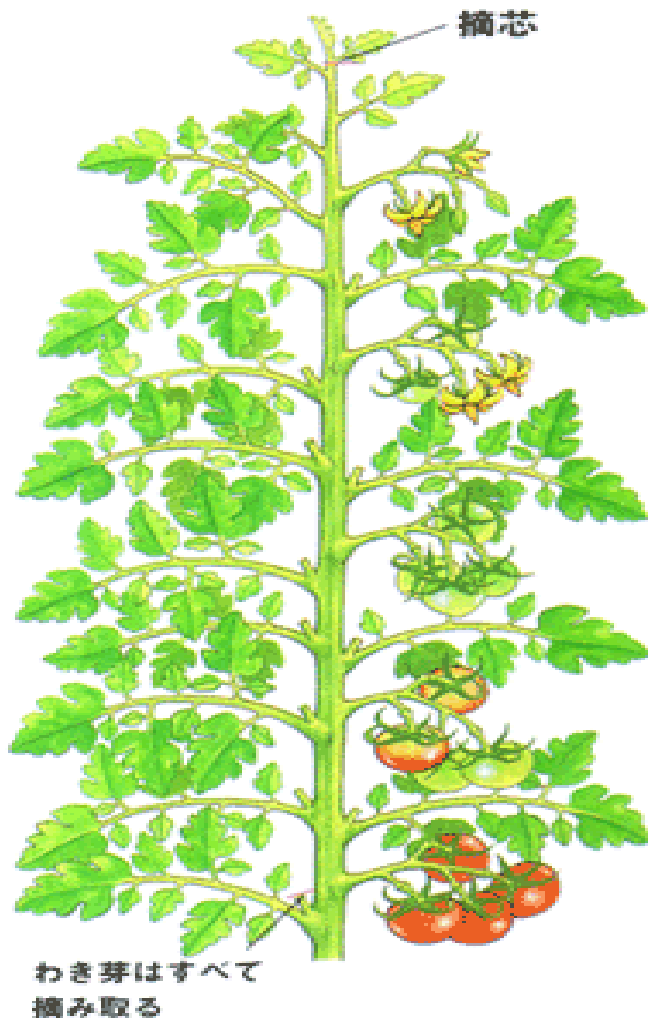


In Japan



Management after transplanting

Pruning



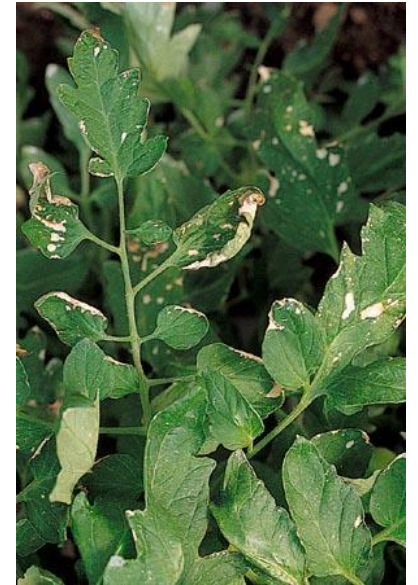
Management after transplanting

Pruning



Management after transplanting

Physiological disorder of TOMATO



Excess and Deficiency symptom of N



Excess symptom of N

Deficiency symptom of N

Deficiency symptom of K



Deficiency symptom of Ca



Deformation fruit



Disease and Pest of TOMATO



Pseudomonas solanacearum
(HÉO XANH VI KHUẨN)



XANTHOMONAS (BỆNH DO VI KHUẨN)

Xanthomonas Axonopodis pv..*Vesicatoria* = Vk. *Xanthomonas campestris*)



Phytophthora infestans-Phycomycetes
BỆNH MỐC SƯƠNG =SƯƠNG MAI (Do nấm)



Alternaria solani
BỆNH ĐÓM VÒNG



Colletotricum coccodes, Colletotricum sp.
BỆNH THÁN THU



TYLCV (Virus)



Leveillula (bệnh nấm phấn trắng)



Aphid (rệp)



Bemisia tabaci, Bremisia argentifolii (Bọ phấn)



Thysanoptera(thrips) Bộ trĩ



Helicoverpa (sâu đục quả)



Tetranychus (nhện)

