

CHARACTERISTICS OF TOMATO



Hanoi - 2015

	English	Note	Example varieties
1	Seedling: anthocyanin coloration of hypocotyl		
QL	absent	1	PT18, XH5
VG	present	9	CHX1, VR2

1. Stage: Coletydols are fully opened

2. Position: Hypocotyl

3. Method: All plants on the plot



1



9

	English	Note	Example Varieties
2	Plant: growth type		
QL	determinate	1	VR2, XH5
VG	indeterminate	2	CHX1

1.Stage

Flowering

2.Position

Meristem

3.Method

All plants on the plot

	English	Note	Example varieties
3	Inflorescences: number of inflorescences on main stem (only determinate growth type varieties, side shoots to be removed)		
QN	few	3	Lai số 2
VG/	medium	5	VR2
MS	many	7	

1.Stage

Plants stop growing up, there is inflorescences at meristem

2. Position

Flower

3.Method

Accounting the number of inflorescences on the main stem on the plot

	English	Note	Example varieties
4	Stem: anthocyanin coloration		
QN VG	absent or very weak	1	PT18, XH5
	weak	3	Lai số 2
	medium	5	CHX1
	strong	7	
	very strong	9	

1.Stage

+ Determinate varieties : There are at least two clusters of fruit, before ripening

+ Indeterminate varieties: There are at least five clusters of fruit , before reaping

2. Position

Upper side of the third part of plant

3.Method

All plants on the plot



1



7

	English	Note	Example varieties
5	Stem: length of internode (only indeterminate growth type varieties)		
QN VG/ MS	short	3	NH2764
	medium	5	CHX1
	long	7	

1.Stage

There are at least five clusters of fruit , before reopening

2. Position

Between the 1st and 4th trusses

3.Method

Measuring 20 plants on the plot

	English	Note	Example varieties
6	Leaf: attitude		
QN VG/ MS	semi-erect	3	
	horizontal	5	PT18, XH5
	semi drooping	7	Hồng Lan

1.Stage

+ Determinate varieties : There are at least two clusters of fruit, before ripening

+ Indeterminate varieties: There are at least five clusters of fruit , before repening

2. Position

Leaves at the middle of plants

3.Method

All plants on the plot



3



5



7

	English	Note	Example varieties
7	Leaf: length		
QN	short	3	XH5
VG/ MS	medium	5	CHX1
	long	7	

1.Stage

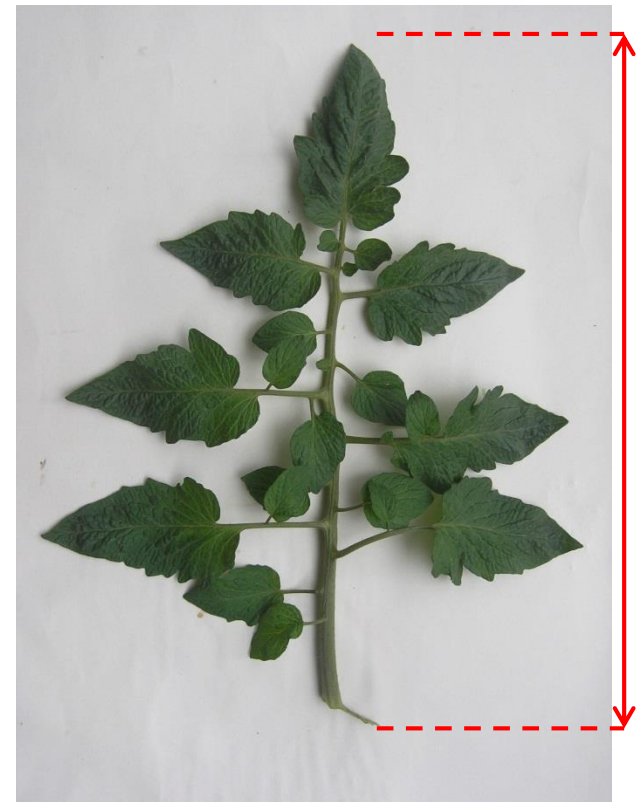
- + Determinate varieties :There are at least two clusters of fruit, before ripening
- + Indeterminate varieties: There are at least five clusters of fruit , before repening

2. Position

Leaves at the middle of plants

3.Method

Measuring from petiole to top leaf on 20 plants on the plot



	English	Note	Example varieties
8	Leaf: width		
QN VG/ MS	narrow	3	PT18
	medium	5	HT160
	broad	7	

1.Stage

+ Determinate varieties : There are at least two clusters of fruit, before ripening

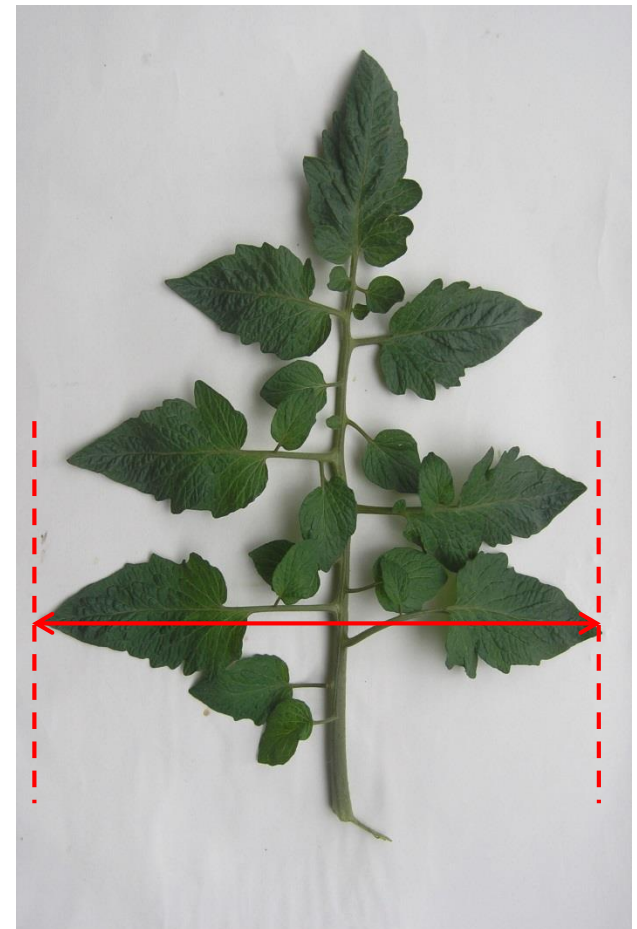
+ Indeterminate varieties: There are at least five clusters of fruit , before repening

2. Position

The largest of Leaves at the middle of plants

3.Method

Measuring leaves of 20 plants on the plot



	English	Note	Example varieties
9	Leaf: division of lobe		
QL	pinnate	1	
VG	bipinnate	2	PT18, XH5

1.Stage

+ Determinate varieties : There are at least two clusters of fruit, before ripening

+ Indeterminate varieties: There are at least five clusters of fruit , before repening

2. Position

Leaves at the middle part of plants

3.Method

All plants on the plot



1



2

	English	Note	Example varieties
10	Leaf: size of leaflets		
QN VG	very small	1	
	small	3	
	medium	5	XH5
	large	7	Lai số 2
	very large	9	

1.Stage

+ Determinate varieties: There are at least two clusters of fruit, before ripening

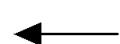
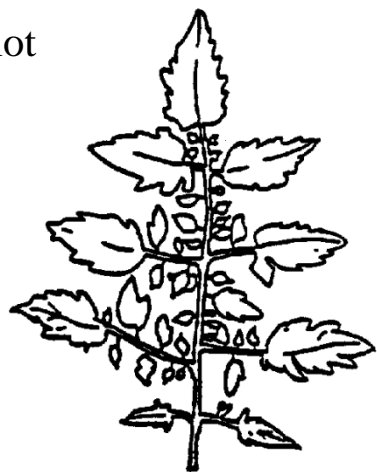
+ Indeterminate varieties: There are at least five clusters of fruit, before ripening

2. Position

Leaflets at the middle part of plants

3.Method

All plants on the plot



Leaflets at the middle part of plant



	English	Note	Example varieties
11	Leaf: intensity of green color		
QN VG	Light	3	
	Medium	5	XH5
	Dark	7	Lai số 2,CHX1

1.Stage

- + Determinate varieties : There are at least two clusters of fruit, before ripening
- + Indeterminate varieties: There are at least five trusses of fruit, before reopening

2. Position

Upper side of leaves on the middle of plants

3.Method

All plants on the plot



3



5

	English	Note	Example varieties
12	Leaf: glossiness		
QN VG	weak	3	PT18
	medium	5	XH5
	strong	7	Lai số 1

1.Stage

- + Determinate varieties : There are at least two clusters of fruit, before ripening
- + Indeterminate varieties: There are at least five clusters , before repening

2. Position

Upper side of the leaves of the middle plants

3.Method

All plants on the plot

	English	Note	Example varieties
13	Leaf: blistering		
QN VG	weak	3	PT18
	medium	5	Lai số 2
	strong	7	

1.Stage

- + Determinate varieties : There are at least two clusters of fruit, before ripening
- + Indeterminate varieties: There are at least five clusters of fruit, before reopening

2. Position

Upper side of the leaves of the middle plants

3.Method

All plants on the plot



blistering

	English	Note	Example varieties
14	Leaf: size of blisters		
QN VG	small	3	Lai số 2
	medium	5	XH5
	large	7	

1.Stage

+ Determinate varieties : There are at least two clusters of fruit, before ripening

+ Indeterminate varieties : There are at least five clusters of fruit , before reponing

2. Position

Upper side of leaves on the middle of plants

3.Method

All plants on the plot

	English	Note	Example varieties
15	Leaf: attitude of petiole of leaflet in relation to main axis		
QN VG	semi-erect	3	Lai số 2, HT144
	horizontal	5	XH5
	semi drooping	7	

1.Stage

+ Determinate varieties : There are at least two clusters of fruit, before ripening

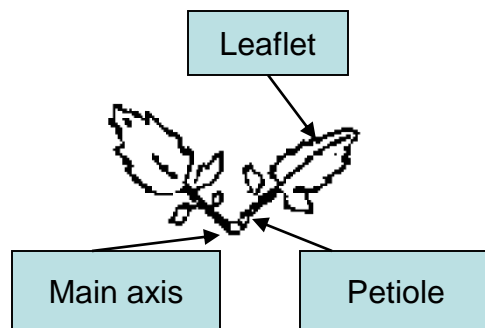
+ Indeterminate varieties : There are at least five clusters of fruit , before reopening

2. Position

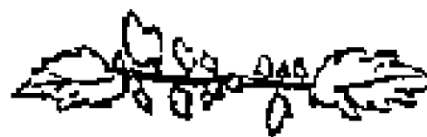
Leaflets of the middle leaves of the middle plants

3.Method

All plants on the plot



3



5



7

	English	Note	Example varieties
16	Inflorescence: type		
QN VG/	mainly uniparous	1	Lai số 2, XH5
	intermediate	2	VR2
	mainly multiparous	3	

1.Stage

From the fruits emerge to ripening

2. Position

The fruits of the 2nd -3rd truss

3.Method

All plants on the plot



1



2



3

	English	Note	Example varieties
17	Flower: fasciation		
QL VG	absent	1	XH5, VR2
	present	9	Lai số 2, Tương dương

1.Stage

Flowering

2. Position

The 1st flower of the 2nd -3rd truss

3.Method

All plants on the plot



1



9

	English	Note	Example varieties
18	Flower: pubescence of tyle		
QL VG	absent or very scarce	1	
	present	9	XH5, VR2

1.Stage

Flowering

2. Position

Flowers of the 2nd -3rd truss

3.Method

All plants on the plot

	English	Note	Example varieties
19	Flower: color		
QL VG	yellow	1	XH5, VR2
	orange	2	

1.Stage

Flowering

2. Position

Flowers of the 2nd -3rd truss

3.Method

All plants on the plot



	English	Note	Example varieties
20	Peduncle: abscission layer		
QL VG	absent	1	Lai số 1, Tương dương
	present	9	XH5, VR2

1.Stage

Maturity

2. Position

_Peduncle

3.Method

Peduncle should be removed to observe



1



9

	English	Note	Example varieties
21	Peduncle: length (Only for varieties with abscission layers)		
QN VG/ MS	short	3	VR2
	medium	5	Savior
	long	7	

1.Stage

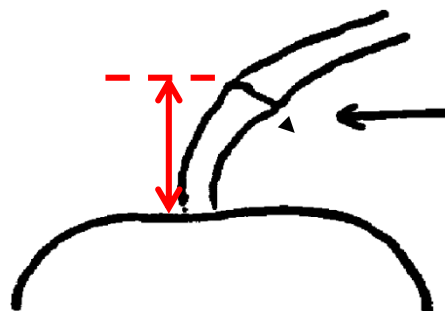
Maturity

2. Position

Peduncle

3.Method

Measuring 20 fruits on the plot



Peduncle Length



	English	Note	Example varieties
22	Fruit: size		
QN VG/ MS	very small	1	
	very small to small	2	VR2
	small	3	
	medium	5	PT18
	large	7	
	very large	9	

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

Weighing 20 fruits on the plot

	English	Note	Example varieties
23	Fruit: ratio length/diameter		
QN VG/ MS	very small	1	
	small	3	
	small to medium	4	Lai số 2
	medium	5	
	large	7	
		8	VR2
	very large	9	

1.Stage

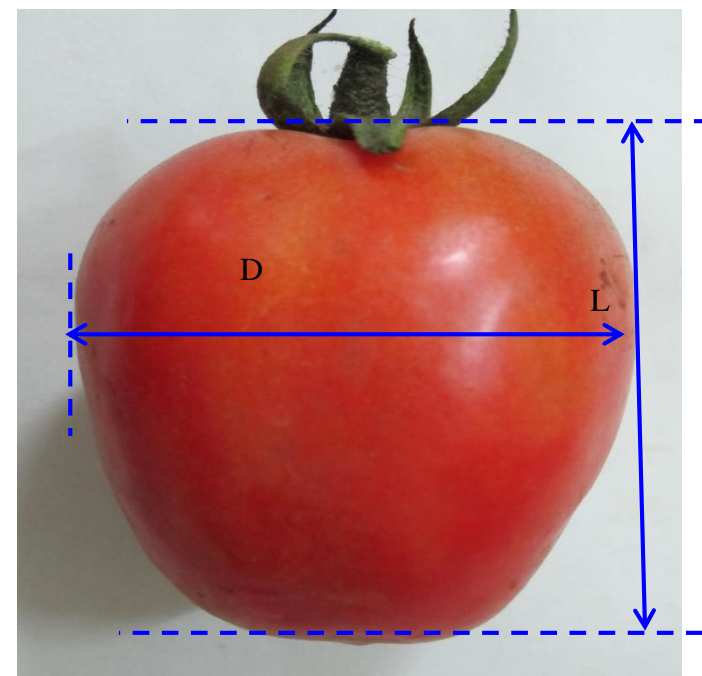
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

Measuring the length and diameter of 20 fruits, figure out the ratio length/diameter



	English	Note	Example varieties
24	Fruit: shape in longitudinal section		
PQ VG	flattened	1	Tương dương
	slightly flattened	2	Lai số 2
	circular	3	XH5
	rectangular	4	
	cylindrical	5	VR2
	elliptic	6	
	heart shaped	7	PT18
	ovovate	8	
	ovate	9	
	pear shaped	10	

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

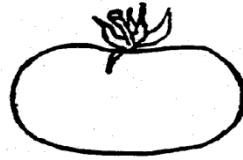
Fruits of the 2nd- 3rd truss

3.Method

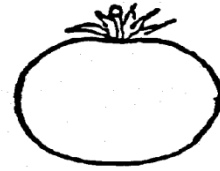
Cutting in longitudinal section and observe



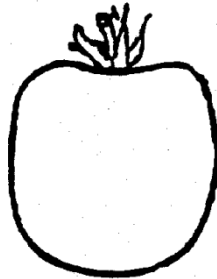
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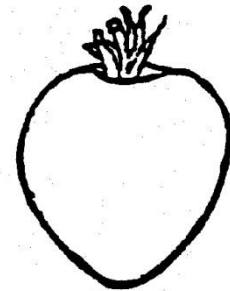
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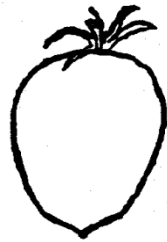
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6



7



8



9



10

	English	Note	Example varieties
25	Fruit: ribbing at peduncle end		
QN VG	absent or very weak	1	VR2
	weak	3	PT18
	medium	5	Lai số 2
	strong	7	
	very strong	9	Tương dương

1.Stage:

The completely ripening fruits of the 2nd- 3rd truss

2.Position:

Fruits of the 2nd- 3rd truss

3.Method:

Observing the level of deepness of ribbing at peduncle end



	English	Note	Example varieties
26	Fruit: cross section		
QL	not round	1	Tương dương
VG	round	2	Lai số 2, XH5

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

Cutting cross section at the widest part , observe the cross section of the fruit



1



2

	English	Note	Example varieties
27	Fruit: depression at peduncle end		
QN VG	absent or very weak	1	XH5, VR2
	weak	3	HT160
	medium	5	Lai số 2, CHX1
	strong	7	Tương dương
	very strong	9	

1.Stage

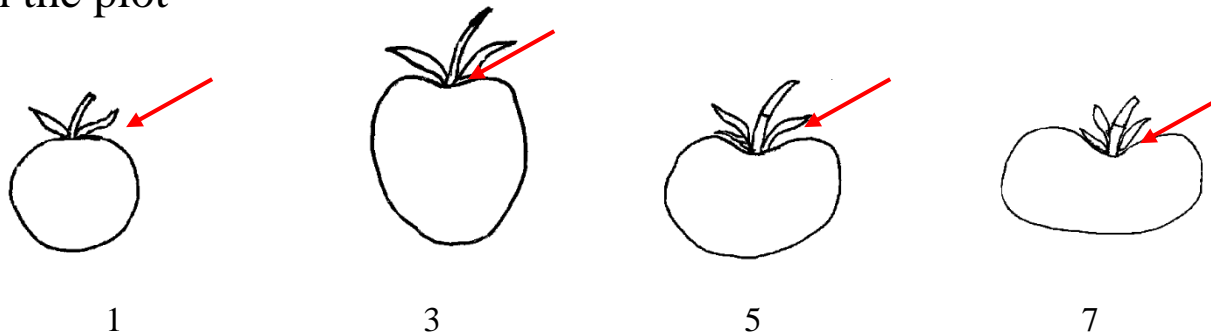
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

All fruits on the plot



	English	Note	Example varieties
28	Fruit: size of pedunclescar		
QN VG	very small	1	VR2
	small	3	PT18
	medium	5	DT28
	large	7	Tương dương, CHX1
	very large	9	Lai số 1

1.Stage

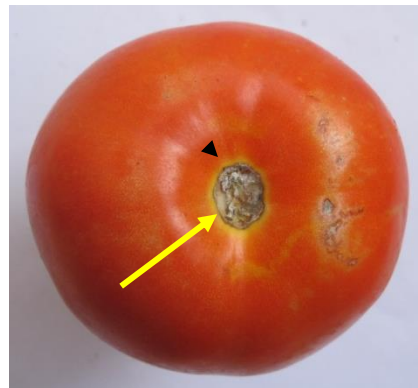
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

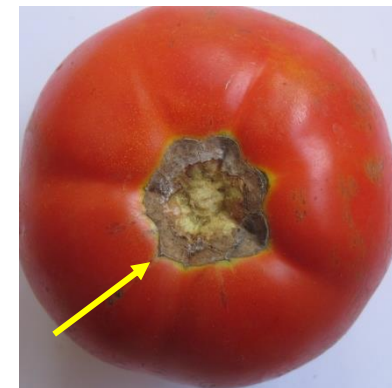
All fruits on the plot



3



7



9

	English	Note	Example varieties
29	Fruit: size of blossoms scar		
QN VG/ MS	very small	1	VR2
	small	3	XH5, PT18
	medium	5	NH2764
	large	7	Lai số 2
	very large	9	Tương dương

1.Stage

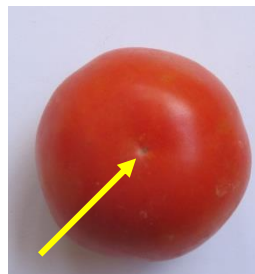
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

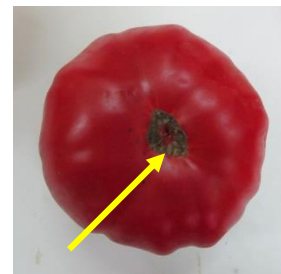
All fruits on the plot



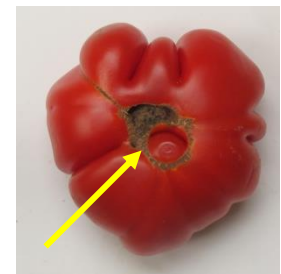
1



3



7



9

	English	Note	Example varieties
30	Fruit: shape at blossomend		
QN VG	indented	1	
	indented to flat	2	
	flat	3	PT18, XH5
	flat to pointed	4	
	pointed	5	

1.Stage

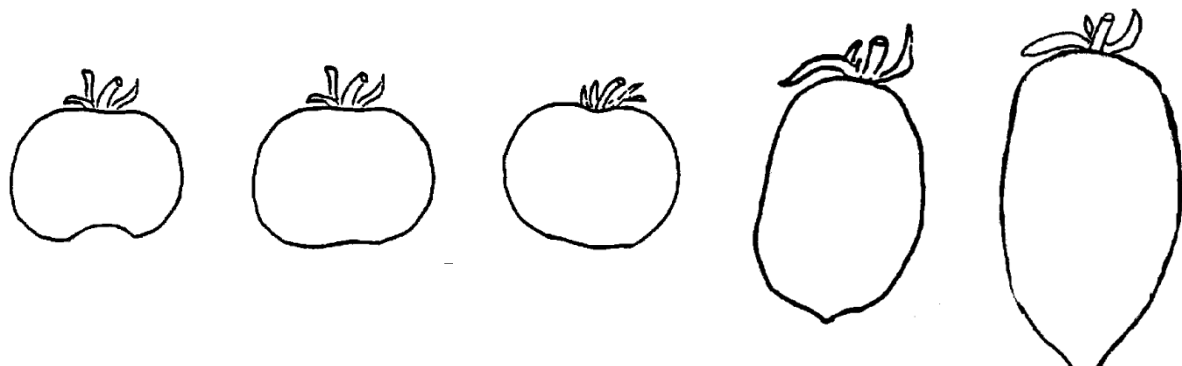
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

observing all fruits on the plot



3



5



7

	English	Note	Example varieties
31	Fruit: size of core in cross section (inrelation to total diameter)		
QN VG/ MS	very small	1	VR2
	small	3	
	medium	5	XH5, PT18
	large	7	Lai số 2
	very large	9	Lai số1

1.Stage

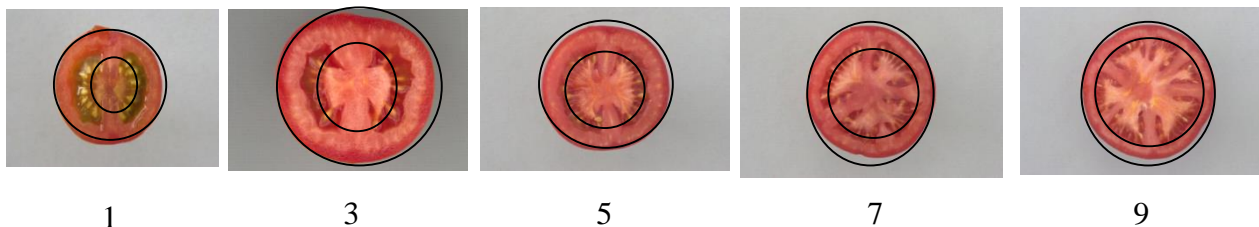
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

Cutting the fruits cross section at the widest part and observe size of core in cross section(in relation to total diameter)



	English	Note	Example varieties
32	Fruit: thickness of pericarp		
QN MS	thin	3	VR2
	medium	5	Savior
	thick	7	

1.Stage

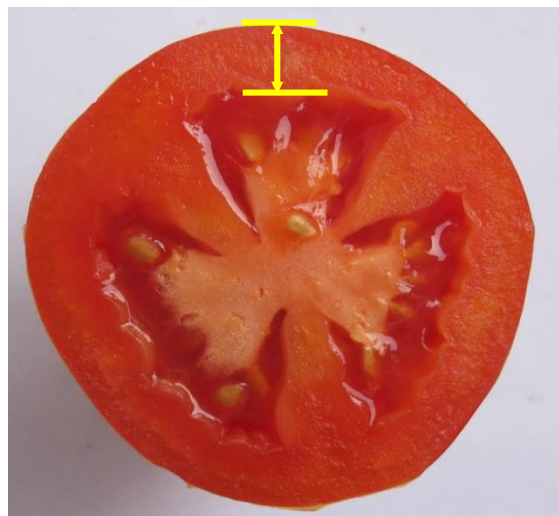
The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3. Method

Cutting the fruits cross section at the widest part and measure between skin and the joining part of locules



	English	Note	Example varieties
33	Fruit: number of locules		
QN VG/ MS	only two	1	VR2
	two or three	2	PT18, XH5
	three or four	3	NH2764
	four, five or six	4	CHX1
	more than six	5	Tương dương

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3. Method

Cutting fruits cross section at the widest part and account the number of locules



1



2



3



4



5

	English	Note	Example varieties
34	Fruit: green shoulder		
QL	absent	1	XH5, PT18
VG	present	9	Lai số 2

1.Stage

The fruits develope fully before marturity

2. Position

Fruits of the 2nd- 3rd truss

3.Method

All fruits on the plot



1



9

	English	Note	Example varieties
35	Fruit: extent of green shoulder		
QN VG	small	3	NH2764
	medium	5	Tương dương
	large	7	Lai số 2

1. Stage

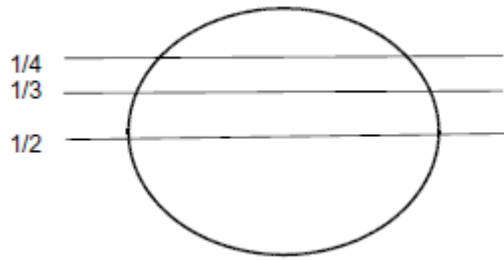
The fruits develop fully before maturity

2. Position

Fruits of the 2nd- 3rd truss

3. Method

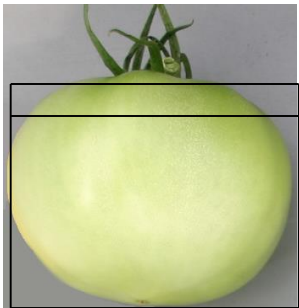
All fruits on the plot



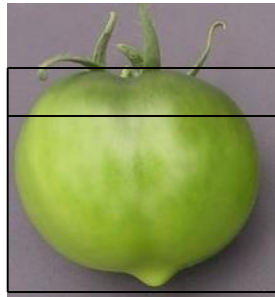
3: small ($1/4$)

5: medium ($1/3$)

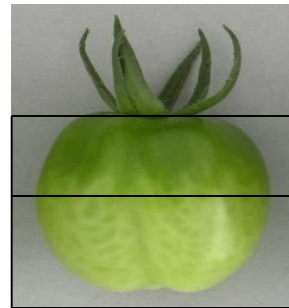
7: large ($1/2e$)



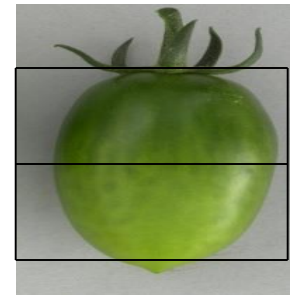
1



3



5



7

	English	Note	Example varieties
36	Fruit: intensity of green color of shoulder		
QN VG	light	3	HT160
	medium	5	VR2
	dark	7	Lai số 2

1.Stage

The fruits develope fully, before marturity

2. Position

Fruits of the 2nd- 3rd truss

3.Method

All fruits on the plot



3



5



7

	English	Note	Example varieties
37	Fruit: intensity of green color (excluding shoulder, before maturity)		
QN VG	light	3	Hồng Lan
	medium	5	NH2764
	dark	7	

1.Stage

The fruit develop fully, before maturity

2. Position

Fruits of the 2nd- 3rd truss

3.Method

All fruits on the plot

	English	note	Example varieties
38	Fruit: color at maturity		
PQ VG	cream	1	
	yellow	2	
	orange	3	
	pink	4	
	red	5	XH5, PT18
	brownish	6	

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruit

3.Method

All fruits on the plot



2



3



5

	English	Note	Example varieties
39	Fruit: color of flesh		
PQ VG	cream	1	
	yellow	2	
	orange	3	
	pink	4	
	red	5	XH5, PT18
	brownish	6	

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruits of the 2nd- 3rd truss

3.Method

All Fruits on the plot



2



3



5

	English	Note	Example varieties
40	Fruit: firmness		
QN VG	very soft	1	
	soft	3	Tương dương
	medium	5	NH2764
	firm	7	VR2
	very firm	9	

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruit

3.Method

Determining by hand the firmness

	English	Note	Example varieties
41	Fruit: shelf-life		
QN MG	very short	1	
	very short to short	2	Tương dương
	short	3	
	medium	5	NH2764
	long	7	
	very long	9	

1.Stage

The completely ripening fruits of the 2nd- 3rd truss

2. Position

Fruit

3.Method

The number of days between picking fruits and the time that the firmness becomes no longer commercially viable

	English	Note	Example varieties
42	Time of flowering		
QN MG	early	3	
	early to medium	4	NH2764
	medium	5	
	medium to late	6	PT18
	late	7	

1.Stage

Flowering

2. Position

The 3rd flower of the 2 nd truss

3.Method

The number of days from sowing to 50% of flowering plants

	English	Note	Example varieties
43	Time of maturity		
QN MG	very early	1	
	early	3	
	medium	5	VR2
	late	7	NH2764
	very late	9	

1.Stage for assessment

Maturity

2. Position

The 1st fruit of the 2 nd truss

3.Method

The number of days from sowing to 50% plants at the maturity

	English	Note	Example varieties
44	Fruit: dry matter content (at maturity)		
QN MG	low	3	XH5
	medium	5	NH2764
	high	7	

1.Stage

Maturity

2. Position

The 1st fruit of the 2 nd truss

3.Method

Taking 5 fruits of 2 nd- 3rd truss randomly, dry, and figure out the ratio of dry matter content and fresh matter content

THANK YOU !