

# Growth and Yield characteristics of Early and Latd *Schizonepeta Tenuifolia*

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## Background

The *Schizonepeta Tenuifolia* is annual plant cultivated in Asia province of China, Japan and Korea. Terminal flower spikes used as medicinal material were collected in fall and dry. It has distinctive scent derived from its essential oil consisted of pulegone, menthone and piperitenone. Major effects include alleviating fever, pain and anti-inflammation. There are no official varieties developed so far, and it is necessary to develop standard varieties to supply reliable material with consumers and markets. In this study, the growth and yield characteristics of the genetic resources collected for cultivating good-quality varieties were tested. two varieties were classified into early and late maturing.

## Methods and results

### ○ Research Contents

- Objective : Finding out how differnces in grow phase and quantity between early maturing and late maturing cultivars  
Ripening time : Early-maturing (from Sep 20 to 29)  
Late-maturing (from Oct 12 to 25 )
- Plant : *Schizonepeta tenuifolia*
- Investigation items : growth and quantity characteristic by early-maturing and late maturing

Table 1. Growth Characteristics

	Plant height (cm)	Stem thickness (cm)	Stem color (RHS color chart)	Leaf length (cm)	Leaf width (cm)
Early maturing	95.6	10.0	Red-purple group 71-A	6.4	5.7
Late maturing	136.4	9.7	Green group 137-A	8.3	7.7

Table 2 Growth Characteristics

	Node length(cm)			Number of Node	Branch number	
	top	middle	last		First	second
Early maturing	16.2	41.9	74.2	10	18	93
Late maturing	13.6	52.3	59.7	21	40	359

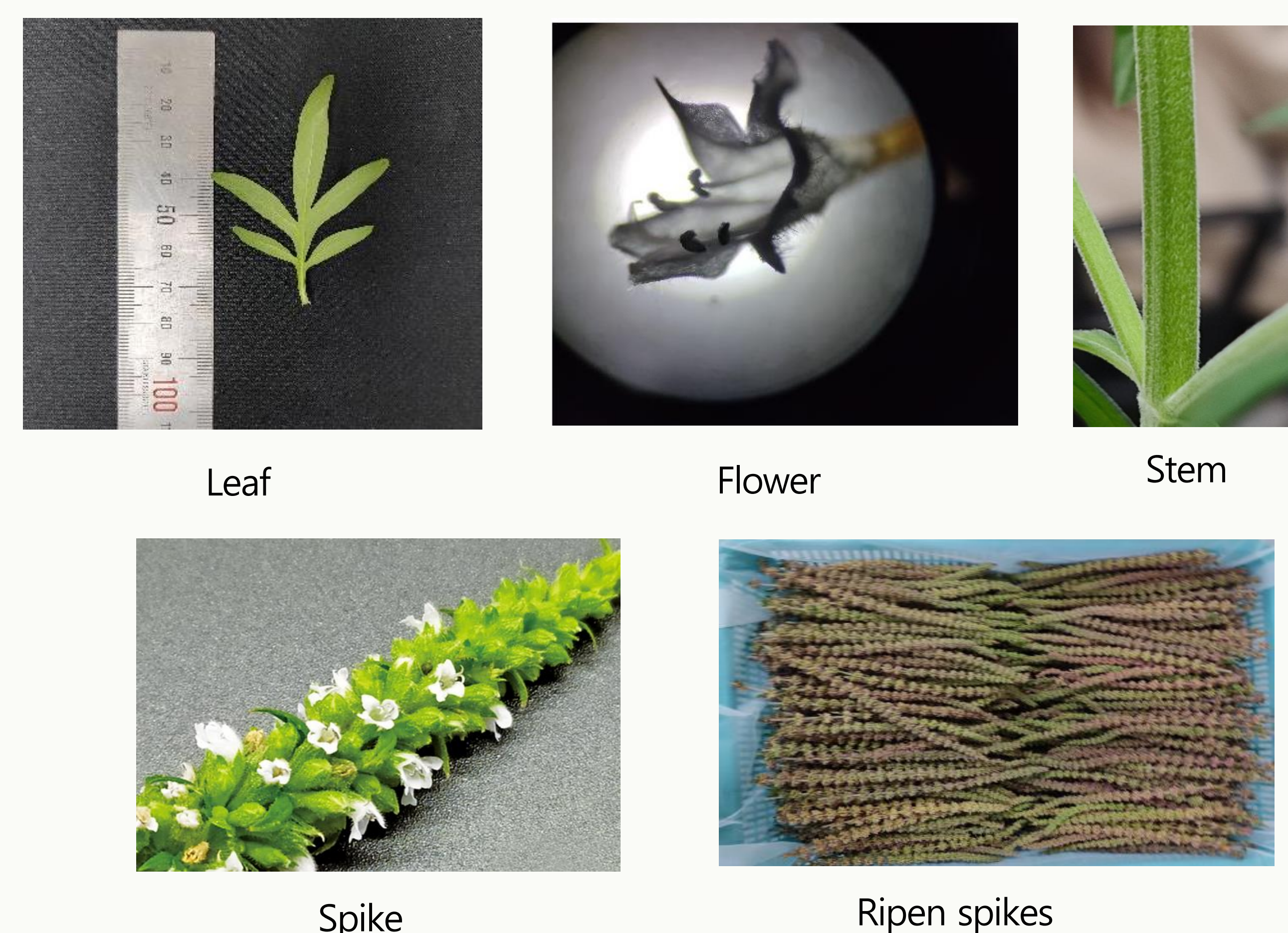
Table 3 Growth Characteristics

	Spike length (cm)	Spike thickness (mm)	Numeber of spikes	Spikes weight (g)	Seeds weight (g)
Early maturing	36	12.11	190	116	23.18
Late maturing	28	12.23	299	236	30.62

Picture 1. Different color in early maturing and late maturing



Picture 2. Feature of *Schizonepeta Tenuifolia* in genral



## Conclusions

According to the results of this study, it was found that early maturing *Schizonepeta Tenuifolia* can be harvested earlier due to early flowering and maturation compared to late maturing *Schizonepeta Tenuifolia*, but yields are lower than those of late maturing *Schizonepeta Tenuifolia*. Therefore, it was considered necessary to develop mid-maturing *Schizonepeta Tenuifolia* that could complement this and to develop techniques for increasing early harvest.

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