

## Retting method of hemp stem by natural rainfall for the mechanical decorating and spinning

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### Objectives

This experiment was conducted to establish harvest time and natural rainfall for retting of hemp stem which is suitable for mechanical decorating and spinning.

### Materials and Methods

○ Materials : Korean landrace

○ Method

- Harvest Time : 15nd of June, 1nd of July, 15nd of July

- Retting method : Stand bundels of the hevsted hemp stem under natural rainfall(upper 10mm)

- Factors to establish retting grade : Color of retted stalk, Degree of fiber dissociation, Difficulty of fiber and chip separation when deposited to decorator, Difficulty of fiber combing after decoration

### Results and Discussion

The suitably retted stem had little black spots on the white surface in dried stem. When that stem were deposited in decorator, stems were separated easily to fiber and chips. And after decorating, the fiber were combed easily to single fiber. In case of suitably retted stem, the ratio of dry matter and fiber were estimated to 17%, 14% respectively by regressive formula. When the hemp stem stood under 79~148mm of rainfall, the stems were retted suitably for mechanical decorating.

Table 1. Establish of retting grade by color of dried stalk after retting.

Retting grade	Color of dried stalk	Appearance when inputed to decorator		Difficulty of fiber combing after decoration
		Degree of fiber dissociation	Difficulty of fiber and chip separation	
0	Yellow-White	Impossible	Difficult	Difficult
1	Black sopts on the yellow	Little	Difficult	Difficult
2	Little black spots on the white	Medium	Easy	Easy
3	Medium black spots on the white	Much	Much break fiber	Bleak fiber
4	Black	Output fiber and chip together		-