

Table 1 Judgment matrix *A*

Indexes	Yield (kg/hm <sup>2</sup> )	Proportion of superior tobacco (%)	Output (yuan/hm <sup>2</sup> )	Number of leave (piece)	Stem circumference (cm)	Plant height (cm)	Nicotine content (%)	Total sugar content (%)	Kalium content (%)	Black shank index
Yield (kg/hm <sup>2</sup> )	1	1/3	1/5	3	4	4	2	3	3	1/2
Proportion of superior tobacco (%)	3	1	1/2	7	9	9	5	7	7	2
Output (yuan/hm <sup>2</sup> )	5	2	1	7	9	9	6	7	7	3
Number of leave (piece)	1/3	1/7	1/7	1	2	2	1/2	1	1	1/6
Stem circumference (cm)	1/4	1/9	1/9	1/2	1	1	1/3	1/2	1/2	1/7
Plant height (cm)	1/4	1/9	1/9	1/2	1	1	1/3	1/2	1/2	1/7
Nicotine content (%)	1/2	1/5	1/6	2	3	3	1	2	2	1/4
Total sugar content (%)	1/3	1/7	1/7	1	2	2	1/2	1	1	1/6
Kalium content (%)	1/3	1/7	1/7	1	2	2	1/2	1	1	1/6
Black shank index	2	1/2	1/3	6	7	7	4	6	6	1

Note: The content of total sugar and potassium is expressed by mass percentage (Yao et al., 2020)