Table 1. The chemical compositions of experimental diets (% dry matter ± standard deviation)

Variables	Experimental diets[1)]		
	CON	BOK	Mixed hay
Dry matter, %	90.1 ± 2.21	90.0 ± 2.25	90.8 ± 0.08
Crude protein	18.3 ± 2.16	17.8 ± 2.10	10.2 ± 1.85
Ether extract	2.85 ± 0.30	2.74 ± 0.21	1.24 ± 0.14
Non-fiber carbohydrate	56.4 ± 4.06	56.1 ± 5.79	18.2 ± 0.38
Neutral detergent fiber	16.5 ± 0.46	17.8 ± 2.04	65.5 ± 0.97
Acid detergent fiber	8.41 ± 1.25	8.19 ± 0.81	38.1 ± 1.62
Crude ash	6.05 ± 1.74	5.58 ± 1.85	4.93 ± 1.12
Gross energy, Kcal/g	4.31 ± 0.08	4.33 ± 0.08	4.36 ± 0.09

[1)] CON, diets applied with no additives; BOK, diets applied with 5% of Bokbunja; Mixed hay, Tall fescue and Kentucky bluegrass (50:50).

Non-fiber carbohydrate, 100 – (crude protein + ether extract + crude ash + neutral detergent fiber)

Table 2. Effects of diets applied with 5% Bokbunja on growth performances and enteric methane emission of Hanwoo steers

Variables[2)]	Treatments[1)]		SEM	*P*-value
	CON	BOK		
DMI, kg of DM	9.26	9.08	0.092	0.273
ADG, kg/day	1.25	0.61	0.240	0.070
Enteric methane emission				
CH_4, L/day	306.6[a]	268.8[b]	7.644	0.002
CH_4, g/day	219.6[a]	192.6[b]	5.475	0.002
CH_4, g/kg of DMI	23.7[a]	21.2[b]	0.590	0.027

[1)] CON, diets applied with no additives; BOK, diets applied with 5% of Bokbunja.

[2)] DMI, dry matter intake; DM, dry matter; ADG, average daily gain.

[a,b] Superscript represents significant difference by Tukey's multiple comparison ($P < 0.05$).

Table 3. Effects of diets applied with 5% Bokbunja on rumen fermentation characteristics of Hanwoo steers

Variables[2)]	Treatments[1)]		SEM	*P*-value
	CON	BOK		
pH	6.41	6.38	0.089	0.828
Ammonia-N, mg/dL	6.38	6.64	1.263	0.958
Total VFA, m*M*/L	130.2	119.7	10.17	0.080
Acetate, % of total VFA	61.2	62.0	0.694	0.152
Propionate, % of total VFA	21.0	20.9	0.782	0.335
Butyrate, % of total VFA	15.1	14.8	0.425	0.220
Acetate:propionate ratio	2.96	3.01	0.150	0.098

[1)] CON, diet diets applied with no additives; BOK, diets applied with 5% of Bokbunja.
[2)] VFA, volatile fatty acids.

Table 4. Effects of diets applied with 5% Bokbunja on blood metabolites of Hanwoo steers

Variables	Treatments[1)]		SEM	P-value
	CON	BOK		
Glucose, mg/dL	69.8	70.3	1.476	0.678
Blood urea nitrogen, mg/dL	16.5	16.0	0.701	0.667
Total protein, g/dL	7.05	7.10	0.215	0.885
Albumin, g/dL	2.95	3.03	0.058	0.493
Globulin, g/dL	4.10	4.08	0.168	0.923
Alanine aminotransferase, U/L	41.0	41.0	2.577	1.000
Akaline phosphatase, U/L	93.0	89.8	5.964	0.804
Gamma-glutanytransferase, U/L	22.8	21.6	2.207	0.216
Total bilirubin, mg/dL	0.20	0.23	0.040	0.674
Cholesterol, mg/dL	118.5	109.5	8.592	0.248

[1)] CON, diet diets applied with no additives; BOK, diets applied with 5% of Bokbunja.