



**United States  
Department of  
Agriculture**

**Agricultural  
Marketing  
Service**

**Fruit and  
Vegetable  
Division**

**Fresh  
Products  
Branch**

# **United States Standards for Grades of Snap Beans for Processing**

**Effective July 26, 1959**  
*(Reprinted - January 1997)*

# United States Standards for Grades of Snap Beans for Processing <sup>1</sup>

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## **Grades**

### **§51.3240 U.S. No. 1.**

"U.S. No. 1" consists of snap beans of similar varietal characteristics which are fresh, firm, succulent, tender, fairly well formed, free from decay, anthracnose and extraneous material, and free from damage caused by scars, rust, other disease, insects, bruises, punctures, broken ends or other means.

(a) Unless a larger diameter is specified, the maximum diameter of beans in this grade shall be less than 24/64 of an inch (maximum diameter of 4 sieve size).

(b) Unless otherwise specified, the minimum diameter of beans in this grade shall be 12/64 of an inch.

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<sup>1</sup>Packing of the product in conformity with the requirements of these standards shall not excuse failure to comply with the provisions of the Federal Food, Drug, and Cosmetic Act.

**§51.3241 U.S. No. 2.**

"U.S. No. 2" consists of snap beans of similar color and reasonably similar type which are fresh, firm, not tough or overmature, not seriously misshapen, and which are free from decay, anthracnose and extraneous material, and free from serious damage caused by scars, rust, other disease, insects, bruises, punctures, broken ends or other means.

(a) There shall be no maximum diameter in this grade.

(b) Unless otherwise specified, the minimum diameter of beans in this grade shall be 12/64 of an inch.

**Culls**

**§51.3242 Culls.**

"Culls" consists of beans which do not meet the requirements of U.S. No. 2 grade.

**Size Classifications**

**§51.3243 Size classifications.**

Size classifications have been established by the industry to describe different sizes of beans. If size is specified, it is recommended that one or more of the following designations be used:

Sieve size:	<b>Diameter</b>
No. 1 .....	12/64 to, but not including, 14.5/64 inch.
No. 2 .....	14.5/64 to, but not including, 18.5/64 inch.
No. 3 .....	18.5/64 to, but not including, 21/64 inch.
No. 4 .....	21/64 to, but not including, 24/64 inch.
No. 5 .....	24/64 to, but not including, 27/64 inch.
No. 6 and larger ..	27/64 inch and larger.

**Application of Standards.**

**§51.3244 Application of standards.**

In determining the grade of a lot of beans, representative samples are drawn from various parts of the lot and mixed together. The composite sample or a portion thereof is sorted into U.S. No. 1 grade, U.S. No. 2 grade, culls and extraneous material, and the percentage, by weight, of each is determined. Under this system, tolerances for beans below grade or for extraneous material are not required in the standards.

**Definitions**

**§51.3245 Similar varietal characteristics.**

"Similar varietal characteristics" means that the beans are of the same general type and color. Wax type shall not be mixed with green type, and round, semi-flat and flat types shall not be mixed.

**§51.3246 Fresh.**

"Fresh" means that the bean is not more than slightly wilted.

**§51.3247 Firm.**

"Firm" means that the walls of the bean are reasonably solid, not puffy or spongy.

**§51.3248 Succulent.**

"Succulent" means that the flesh inside of the walls of the bean is translucent and juicy with not more than a slight trace of drying around the seed.

**§51.3249 Tender.**

"Tender" means that the bean is practically free from fiber or strings.

**§51.3250 Fairly well formed.**

"Fairly well formed" means that the bean is not more than moderately curved, crooked, twisted or tapered.

**§51.3251 Extraneous material.**

"Extraneous material" consists of bean vines and leaves, weeds, stones, sticks, loose dirt or other foreign material. All vines attached to beans shall be detached in determining the grade and included with the extraneous material.

**§51.3252 Damage.**

"Damage", unless otherwise specifically defined in this section, means any defect which materially affects the processing quality of the bean. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as damage:

- (a) Scar, rust or other disease spot which will be plainly noticeable after the bean has been blanched;
- (b) Bruises or punctures which are noticeably discolored, or which affect an area more than one-fourth inch in length;
- (c) Broken ends when the flesh of the thick portion of the bean is exposed, or when the remaining portion of the bean is less than 2-1/4 inches long; and,
- (d) Insect stings or scars which will be plainly noticeable after the bean has been blanched.

**§51.3253 Diameter.**

"Diameter" means thickness as determined by the width of the smallest slot through which the bean may be passed, without forcing, in any one position or series of positions.

**§51.3254 Similar color.**

"Similar color" means that the bean is of the same color type as the majority of the beans in the lot. Wax type beans in a lot of green beans shall be classed as culls, and green type beans in a lot of wax beans shall be classed as culls.

**§51.3255 Reasonably similar type.**

"Reasonably similar type" means that the beans are not distinctly different in cross-section shape. For example, round and semi-flat beans shall be considered reasonably similar; and flat and semi-flat beans shall be considered reasonably similar. Round and flat beans shall not be considered reasonably similar types.

**§51.3256 Tough or overmature.**

"Tough or overmature" means that the bean is leathery, fibrous and stringy or has dry, whitish, pithy tissue or air pockets around the seeds.

**§51.3257 Seriously misshapen.**

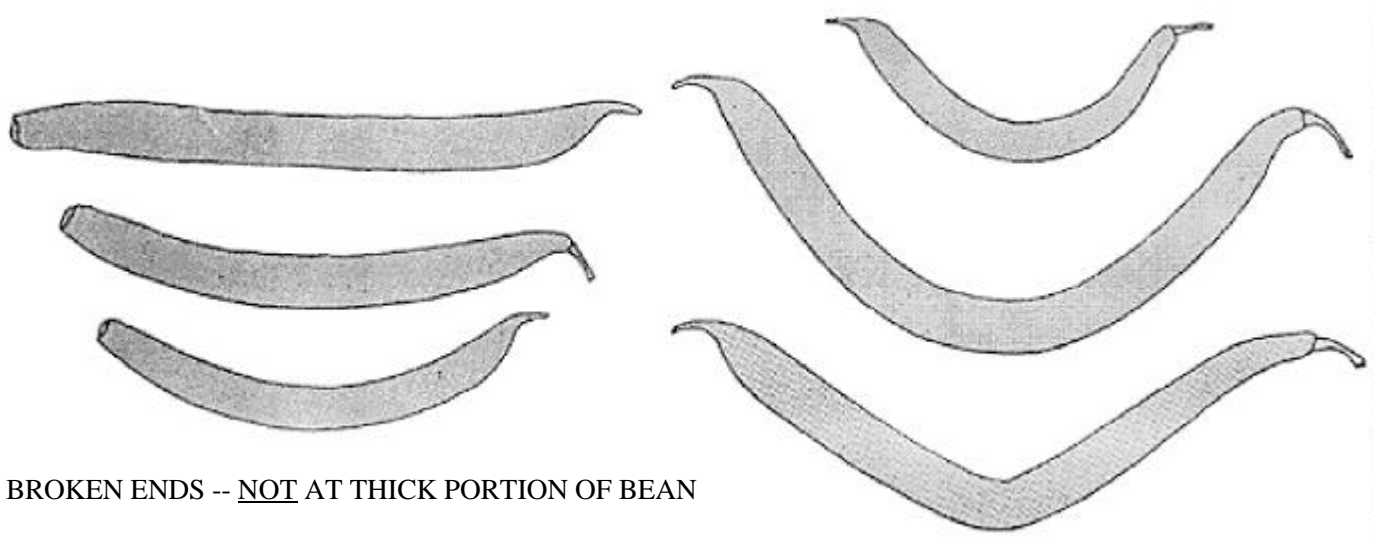
"Seriously misshapen" means that the bean is badly curved, crooked, twisted or tapered.

**§51.3258 Serious damage.**

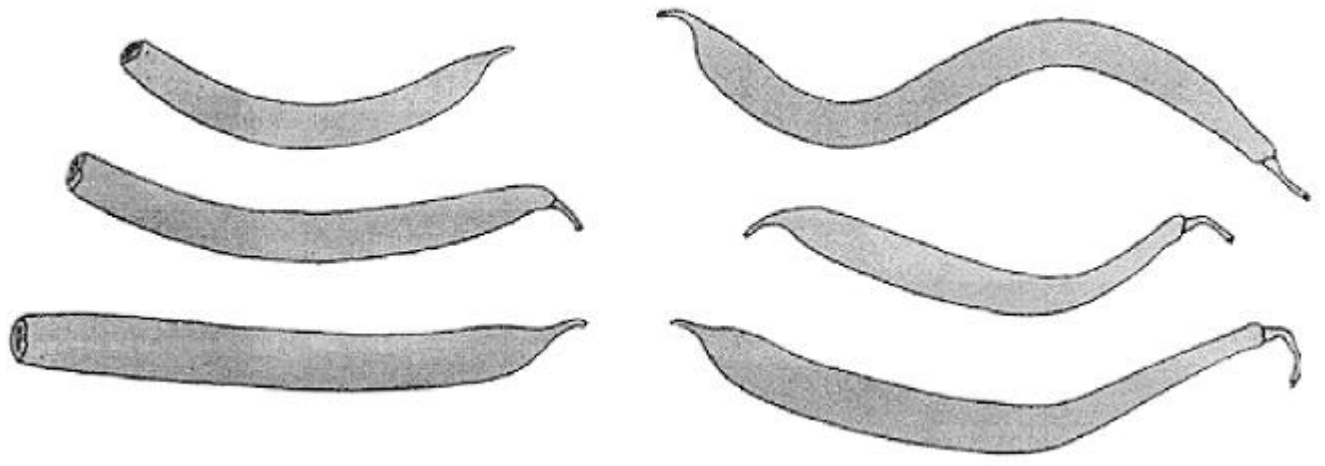
"Serious damage", unless otherwise specifically defined in this section, means any defect which seriously affects the processing quality of the bean. Any one of the following defects, or any combination of defects the seriousness of which exceeds the maximum allowed for any one defect, shall be considered as serious damage:

- (a) Scars, rust or disease spots which are very dark colored or very unsightly, or which are moderately dark and moderately unsightly and affect more than one-fourth the length of the bean;

- (b) Bruises or punctures which are badly discolored, or which affect an area more than three-fourths inch in length;
- (c) Broken ends which expose the flesh of the thick portion of the bean when both ends are broken, or when one end is broken and the exposed flesh is distinctly discolored, or when the remaining portion of the bean is less than 2-1/4 inches long; and,
- (d) Insects which are present inside the bean, or any insect hole penetrating the wall of the bean, or very unsightly insect stings or scars.



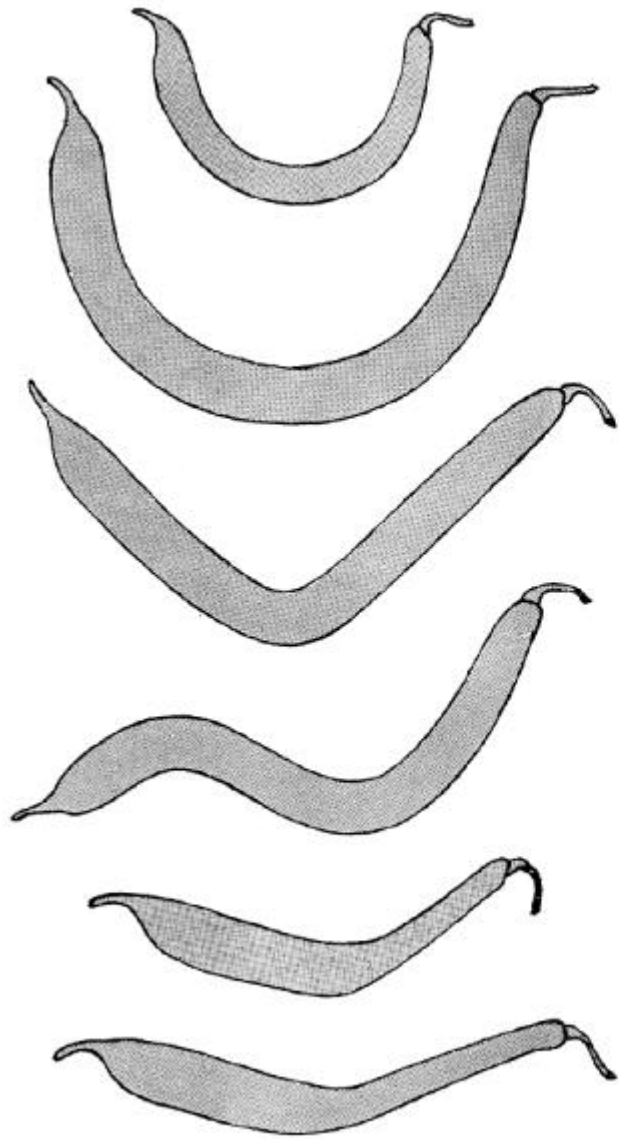
BROKEN ENDS -- NOT AT THICK PORTION OF BEAN



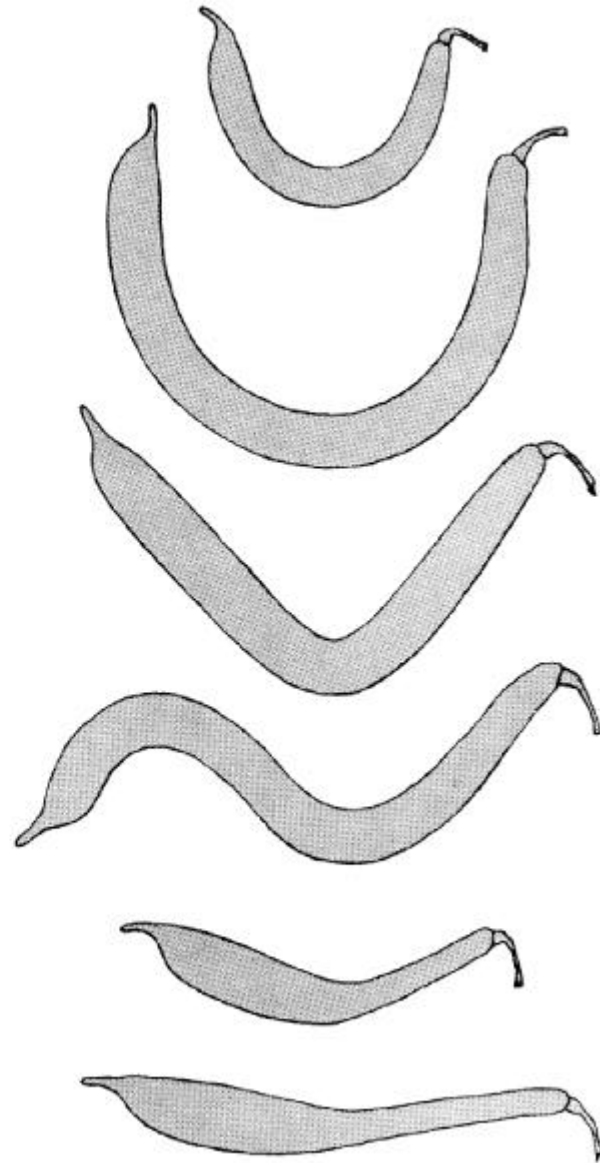
BROKEN ENDS -- AT THICK PORTION OF BEAN

FAIRLY WELL FORMED  
Poorest shapes permitted in U.S. No. 1 Grade

Illustration BNSPR 1



NOT SERIOUSLY MISSHAPEN  
Poorest shapes permitted in U.S. No. 2 Grade.



SERIOUSLY MISSHAPEN  
Culls

Illustration BNSPR 2