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## A Descriptive Study of the Grapes of Afghanistan

by

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### Introduction

This paper is the result of field observations and laboratory studies undertaken by the authors during 1957—1959 while the first author was Director of Agricultural Research with the University of Wyoming Team associated with the International Cooperation Administration of the United States government and the second author was Associate Director of the Afghan Ministry of Agriculture's Central Experiment Station in Kabul.

A previous study of the grapes of Afghanistan by the Russian botanists N. I. VAVILOV and D. D. BUKINICH included in the volume „Agricultural Afghanistan“ is fragmentary and incomplete. At the time the present study was undertaken there was confusion among foreign agriculturists working in Afghanistan as to the numbers of varieties of grapes grown in the country.



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It is most interesting to note that apparently only *V. vinifera* is grown in the country; no introductions of *V. labrusca* have been made, and the authors feel none should be made because of the potential danger of phylloxera entering a country whose natural boundaries have protected it to date. No vines of the muscat type were ever found in field trips to various parts of the country.

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### Description of grape varieties

#### Abjosh (Boiled water, fig. 1) \*)

1: Light green	10: 18%	19: 360 g
2: Obovoid	11: 0.56%	20: Thin, flattish, round
3: Very large	12: Slightly acid	21: Hard
4: 850 g	13: 1 to 3	22: Thick, short
5: Present	14: Greenish-white	23: Thick, long
6: Thin and leathery	15: 9.0 mm	24: Very Prominent
7: Nonstringent	16: Hard, astringent	25: Good
8: Green	17: Large, conical	26: Mid to late-season
9: Very tough	18: Well filled	27: The best grape for fresh consumption

#### Aquili-i-Siah (The Black Learned, fig. 2)

1: Reddish-black	10: 24.5 %	19: 360 g
2: Spherical	11: 0.30 %	20: Medium, round
3: Medium small	12: Bland	21: Hard
4: 160 g	13: 2 to 4 small seeds	22: Small
5: Heavy	14: Yellowish-brown	23: Short and thin
6: Soft	15: 4.0 mm	24: Prominent
7: Nonstringent	16: Soft, nonstringent	25: Very good
8: Grey	17: Medium, shouldered, conical	26: Mid-season
9: Soft, melting	18: Very compact	27: Used fresh, and dried for raisins

#### Aquili-i-Safid (The White Learned)

1: Yellowish-bronze	10: 26 %	19: 240 g
2: Ovoid	11: 0.32 %	20: Medium, round
3: Very small	12: Sweet	21: Soft
4: 95 g	13: Seedless	22: Short and thin
5: Present	14: —	23: Short and thin
6: Soft	15: —	24: Prominent
7: Nonstringent	16: —	25: Fair
8: Brownish-yellow	17: Medium, winged, conical	26: Mid-season
9: Soft	18: Well filled	27: Not commonly grown

\*) English translation of Afghan grape names

**Characteristics:** 1: Berry color; 2: Berry form; 3: Berry size; 4: Weight of 100 berries; 5: Skin bloom; 6: Skin texture; 7: Skin astringency; 8: Pulp color; 9: Pulp texture; 10: Total soluble solids (%); 11: Total acidity percent; 12: Taste and flavor; 13: Number of seeds; 14: Color of seeds; 15: Size of seeds; 16: Texture and astringency, seeds; 17: Cluster size and form; 18: Cluster density; 19: Weight of full cluster; 20: Stem size and form; 21: Stem texture; 22: Pedicle size; 23: Brush; 24: Torus; 25: Adherence; 26: Ripening season; 27: Desirability

**Askari** (Soldier, fig. 3)

1: Dull green	10: 20 %	19: 437 g
2: Cylindrical	11: 0.88 %	20: Medium, round
3: Medium	12: Bland	21: Soft
4: 265 g	13: Seedless (with 1 to 2 aborted seeds)	22: Thin, short
5: Slight	14: —	23: Thin, long
6: Leathery	15: —	24: Prominent
7: Nonstringent	16: —	25: Good
8: Light green	17: Medium, long, conical	26: Early to mid-season
9: Medium hard	18: Well filled	27: Used fresh, and dried for raisins

**Askari** (of Kandahar)

1: Golden yellow	10: 25 %	19: 105 g
2: Ellipsoidal	11: 0.34 %	20: Small, round
3: Small	12: Sweet	21: Soft
4: 205 g	13: Seedless	22: Small, medium
5: Present	14: —	23: Scanty
6: Soft	15: —	24: Slightly prominent
7: Astringent	16: —	25: Fair
8: Light yellow	17: Small, short, conical	26: Mid-season
9: Soft	18: Well filled	27: Used fresh in Kandahar

**Awee** (Watery, fig. 4)

1: Bright green	10: 16 %	19: 500 g
2: Truncate	11: 0.89 %	20: Thin, angular
3: Medium	12: Acid	21: Very soft
4: 336 g	13: 1 to 2	22: Thick, short
5: Present	14: Greenish-brown	23: Thick, short
6: Thin and leathery	15: 6.5 mm	24: Most prominent
7: Nonstringent	16: Hard, nonstringent	25: Good
8: Light green	17: Medium shouldered, long conical	26: Mid to late-season
9: Soft	18: Well filled	27: Used fresh; can remain on the vine

**Chall** (A town in the North)

1: Bright red	10: 16 %	19: 345 g
2: Ovoid	11: 0.58 %	20: Medium, round
3: Medium	12: Very acid	21: Hard
4: 335 g	13: 1 aborted	22: Medium
5: Present	14: Brownish-green	23: Very thin, very short
6: Leathery	15: 8 mm	24: Prominent
7: Slightly astringent	16: Hard and less astringent	25: Good
8: Greenish-green	17: Medium, cylindrical	26: Mid to late-season
9: Tough	18: Compact	27: Used fresh

**Chishm-i-Gaw** (Bull's eye)

1: Deep red	10: 18 %	19: 230 g
2: Spherical	11: 0.80 %	20: Thick, round
3: Very large	12: Slightly acid	21: Soft
4: 725 g	13: 3 to 6	22: Thick, short
5: Heavy	14: Pink and light brown mixed	23: Very thick, long
6: Thick and leathery	15: 7 mm	24: Very prominent
7: Very astringent	16: Hard and astringent	25: Good
8: Yellowish-green	17: Medium, conical	26: Mid-season
9: Very tough	18: Very compact	27: Used for vinegar production

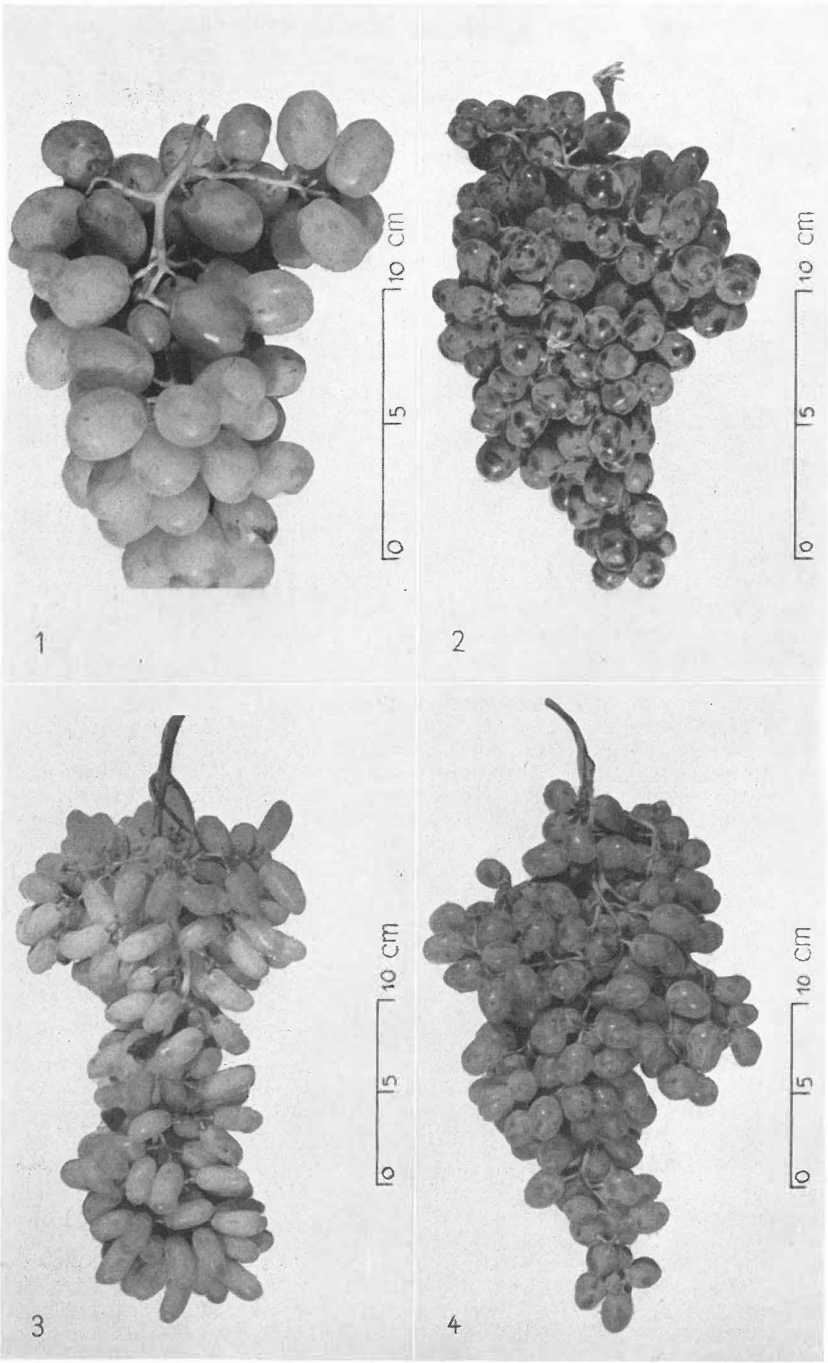


Fig. 1 Abjosh; Fig. 2 Aquili-i-Siah; Fig. 3 Askari; Fig. 4 Awee

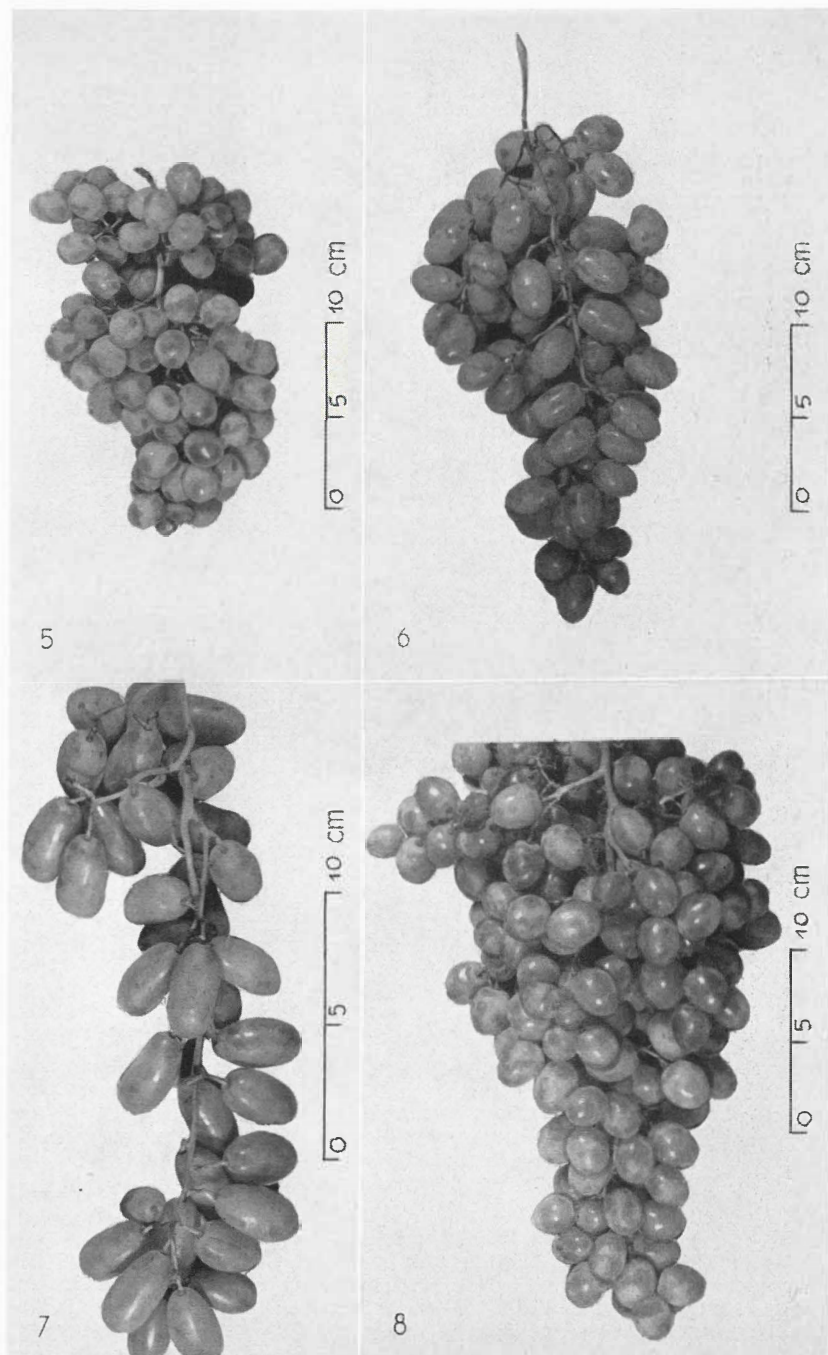


Fig. 5 Gholadan; Fig. 6 Husaini-i-Dabah; Fig. 7 Husaini-Kilk-i-Arus; Fig. 8 Katah

**Dil-i-Murgh** (Chicken's heart)

1: Dark red	10: 15 %	19: 228 g
2: Obovoid	11: 0.79 %	20: Thin, angular
3: Medium small	12: Slightly acid	21: Soft
4: 222 g	13: 1 to 2	22: Thin, short
5: Heavy	14: Brownish-green	23: Thin, long
6: Thick and leathery	15: 7 mm	24: Slightly prominent
7: Nonstringent	16: Brittle,	25: Good
8: Greenish-red	very astringent	26: Mid-season
9: Somewhat hard	17: Medium long, conical	27: Mostly dried,
	18: Loose	and exported

**Fakhri Qualanrak**

1: Yellow to bronze	10: 25 %	19: 285 g
2: Fusiform	11: 0.30 %	20: Thin, round
3: Medium	12: Sweet and slightly	21: Soft
4: 525 g	neutral	22: Medium
5: Present	13: 3 to 4	23: Scanty
6: Soft	14: Light brown	24: Prominent
7: Nonstringent	15: 8.2 mm	25: Good
8: Yellow	16: Hard, astringent	26: Late-season
9: Melting	17: Medium, conical	27: Used fresh in Herat
	18: Well filled	

**Fakhri Safid** (White Fakhri)

1: Yellow	10: 25 %	19: 470 g
2: Ellipsoidal	11: 0.24 %	20: Medium, round
3: Large	12: Bland	21: Hard
4: 685 g	13: Generally 4	22: Medium
5: Present	14: Light brown	23: Scanty
6: Soft melting	15: 7.5 mm	24: Prominent
7: Nonstringent	16: Brittle,	25: Good
8: Yellowish-white	less astringent	26: Late-season
9: Melting, hard	17: Large, conical	27: Fresh; long storage
	18: Well filled	life; Herat

**Fakhri Safid** (of Kandahar)

1: Light green	10: 17 %	19: 560 g
2: Obovoid	11: 0.79 %	20: Medium, round
3: Medium large	12: Very acid	21: Hard
4: 425 g	13: 1 to 3	22: Medium
5: Slightly present	14: Brownish-green	23: Thick, short
6: Thin and leathery	15: 8 mm	24: Prominent
7: Nonstringent	16: Soft, astringent	25: Good
8: Green	17: Large, shouldered,	26: Mid to late-season
9: Soft	cylindrical	27: Not very common
	18: Very compact	(Kabul area)

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**Fakhri-i-Pusht-i-gul** (The back of rose)

1: Pink	10: 26.5 %	19: 270 g
2: Ellipsoidal	11: 0.32 %	20: Medium, round
3: Medium large	12: Bland, nice flavor	21: Hard
4: 500 g	13: 2 to 3	22: Medium
5: Present	14: Light brown	23: Scanty
6: Soft	15: 6.7 mm	24: Prominent
7: Nonstringent	16: Brittle,	25: Good
8: Light pink	less astringent	26: Late-season
9: Melting	17: Medium, conical	27: Used fresh in Herat
	18: Well filled	

**Fakhri-i-Pusht-i-Jol**

1: Purple	10: 20 %	19: 370 g
2: Ovoid	11: 0.55 %	20: Medium, round
3: Medium	12: Neutral	21: Very soft
4: 334 g	13: 2 to 3	22: Medium
5: Slight	14: Reddish-brown	23: Thin, long
6: Thin and leathery	15: 5.5 mm	24: Very prominent
7: Slightly astringent	16: Soft,	25: Fair
8: Bright yellow	slightly astringent	26: Mid to late-season
9: Tough	17: Medium, cylindrical	27: Used fresh,
	18: Very loose	not very common

**Gholadan** (Poor man's grape, fig. 5)

1: Light yellow	10: 25 %	19: 337 g
with pink flesh	11: 0.73 %	20: Medium, round
2: Obovoid	12: Sweet	21: Hard
3: Medium large	13: 1 to 2	22: Thin, short
4: 440 g	14: Brownish-green	23: Thin, short
5: Present	15: 8 mm	24: Prominent
6: Leathery	16: Hard and astringent	25: Good
7: Nonstringent	17: Medium,	26: Late-season
8: Yellowish green	short, conical	27: Used fresh; can be
9: Soft and melting	18: Well filled	stored long period

**Haita** (A place in Arabia)

1: Bright green	11: 0.37 %	19: 600 g
2: Ellipsoidal	12: Neutral	20: Medium, round
3: Medium	13: 2 to 4	21: Hard
4: 440 g	14: Light brown with	22: Medium and dotted
5: Present	yellowish-brown	23: Medium thick
6: Leathery	head	24: Prominent
7: Nonstringent	15: 1 to 2 mm	25: Very good
8: Light green	16: Hard, less astringent	26: Mid to late-season
9: Hard	17: Large, short, conical	27: Outstanding grape for
10: 15 %	18: Very compact	fresh use

**Husaini-i-Dabah** (Barrel-like Husaini, fig. 6)

1: Brownish-green	10: 16 %	19: 273 g
2: Ovoid	11: 0.34 %	20: Thin, round
3: Large	12: Sweet and neutral	21: Soft
4: 680 g	13: 2 to 3	22: Thin, long
5: Present	14: Light brown	23: Very thin, very short
6: Thin and Soft	15: 7.5 mm	24: Less prominent
7: Nonstringent	16: Soft and astringent	25: Good
8: Light yellow	17: Medium, cylindrical	26: Mid to late-season
9: Melting	18: Loose	27: Outstanding grape for
		fresh use

**Husaini-Kilk-i-Arus** (Bride's finger Husaini, fig. 7)

1: Yellowish-green	11: 0.25 %	20: Thin, round
2: Cylindrical	12: Sweet and neutral	21: Soft
3: Large	13: 2 to 3	22: Thin, long
4: 615 g	14: Light brown	23: Very thin, short
5: Present	15: 7.5 mm	24: Slightly prominent
6: Thin and leathery	16: Soft,	25: Good
7: Nonstringent	slightly astringent	26: Mid to late-season
8: Light yellow	17: Medium, cylindrical	27: Used fresh; packed
9: Soft	18: Loose	in wooden boxes
10: 20 %	19: 174 g	for export

**Katah** (Large, fig. 8)

1: Light green	10: 22 %	19: 1040 g
2: Spherical	11: 0.49 %	20: Medium, round
3: Large	12: Very sweet	21: Hard
4: 608 g	13: 3 to 4 + 1	22: Medium
5: Present	14: Light green	23: Thick, short
6: Thick and leathery	15: 8.9 mm	24: Very prominent
7: Slightly astringent	16: Brittle,	25: Good
8: Light yellow	slightly astringent	26: Mid-season
9: Too tough	17: Large, short, conical	27: Used fresh
	18: Compact	

**Kata-i-Shumh Sur** (The large candle head)

1: Light yellow with pink	11: 0.63 %	19: 560 g
2: Ellipsoidal	12: Acid	20: Medium, round
3: Large	13: 2 to 3 + 1	21: Hard
4: 485 g	14: Pinkish-brown	22: Thick, short
5: Present	15: 8 mm	23: Thick, short
6: Thick and leathery	16: Very soft,	24: Very prominent
7: Nonstringent	less astringent	25: Good
8: Light yellow	17: Large, winged,	26: Mid-season
9: Very tough	cylindrical	27: Used fresh;
10: 20 %	18: Well filled	not very common

**Khalili** (The surname for Prophet Ibrahim)

1: Yellowish-green	10: 25 %	19: 240 g
2: Obovoid elongated	11: 0.50 %	20: Thin, angular
3: Medium small	12: Sweet and neutral	21: Very soft
4: 260 g	13: 1 to 2	22: Medium
5: Slightly present	14: Green	23: Medium
6: Soft and melting	15: 8 mm	24: Prominent
7: Nonstringent	16: Soft,	25: Good
8: Light yellow	slightly astringent	26: Early to mid-season
9: Melting	17: Medium, conical	27: Used fresh;
	18: Well filled	local use, tender

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**Characteristics:** 1: Berry color; 2: Berry form; 3: Berry size; 4: Weight of 100 berries; 5: Skin bloom; 6: Skin texture; 7: Skin astringency; 8: Pulp color; 9: Pulp texture; 10: Total soluble solids (%); 11: Total acidity percent; 12: Taste and flavor; 13: Number of seeds; 14: Color of seeds; 15: Size of seeds; 16: Texture and astringency, seeds; 17: Cluster size and form; 18: Cluster density; 19: Weight of full cluster; 20: Stem size and form; 21: Stem texture; 22: Pedicle size; 23: Brush; 24: Torus; 25: Adherence; 26: Ripening season; 27: Desirability



**Kishmish bidana**

1: Pinkish-red	10: 25 %	19: 410 g
2: Cylindrical, elongated	11: 0.32 %	20: Medium, round
3: Medium small	12: Acidic	21: Soft
4: 155 g	13: Seedless	22: Medium small
5: Present	14: —	23: Scanty
6: Soft	15: —	24: Prominent
7: Nonstringent	16: —	25: Fair
8: Pink	17: Medium, conical	26: Mid to late-season
9: Melting	18: Compact	27: Used fresh, and dried in Herat

**Kishmish-i-Kandahar** (Kuandahar Kishmishi \*)

1: Yellowish-green	10: 20 %	19: 1500 g
2: Ellipsoidal	11: 0.52 %	20: Thick, round
3: Medium small	12: Bland	21: Soft
4: 194 g	13: Seedless	22: Thin, short
5: Slight	(3 to 4 aborted)	23: Very thin, short
6: Thin and leathery	14: —	24: Prominent
7: Nonstringent	15: —	25: Fair
8: Light green	16: —	26: Mid-season
9: Soft	17: Large, cylindrical	27: Used fresh and dried; exported
	18: Well filled	

**Kishmish-i-Shamali** (Charikar Kishmishi, fig. 9)

1: Light yellow	10: 26 %	19: 333 g
2: Ovoid	11: 0.66 %	20: Thick, round
3: Medium small	12: Bland	21: Soft
4: 210 g	13: Seedless	22: Thin, short
5: Present	(1 aborted seed)	23: Medium, long
6: Thin and leathery	14: —	24: Prominent
7: Nonstringent	15: 1.5 to 2.0 mm	25: Fair
8: Light green	16: Seedless	26: Mid-season
9: Soft	17: Medium, cylindrical	27: Used fresh and dried; exported
	18: Well filled	

**Lal-i-Liah**

1: Dark red	10: 25 %	19: 605 g
2: Spherical	11: 0.30 %	20: Thick, round
3: Medium to large	12: Slightly acidic	21: Soft
4: 525 g	13: 1 to 2	22: Large
5: Heavy	14: Reddish-brown	23: Stumpy, short
6: Soft	15: 7.5 mm	24: Prominent
7: Nonstringent	16: Brittle, astringent	25: Well
8: Light green	17: Large, cylindrical	26: Late-season
9: Melting	18: Well filled to compact	27: Used fresh in Herat

**Lal-i-Safid** (White Lal)

1: Greenish-yellow	10: 17.5 %	18: Well filled
2: Obovoid	11: 0.49 %	19: 465 g
3: Large	12: Neutral	20: Medium, round
4: 575 g	13: 2 to 3 + 1	21: Hard
5: Slightly present	14: Brownish-green	22: Thick, short
6: Thin and leathery	15: 8 mm	23: Medium, long
7: Nonstringent	16: Hard and very astringent	24: Prominent
8: Light green	17: Medium, short, conical	25: Good
9: Soft		26: Mid-season
		27: Used fresh

\*) kishmish is Thompson's Seedless or Sultanina. The name is used interchangeably to mean raisin.

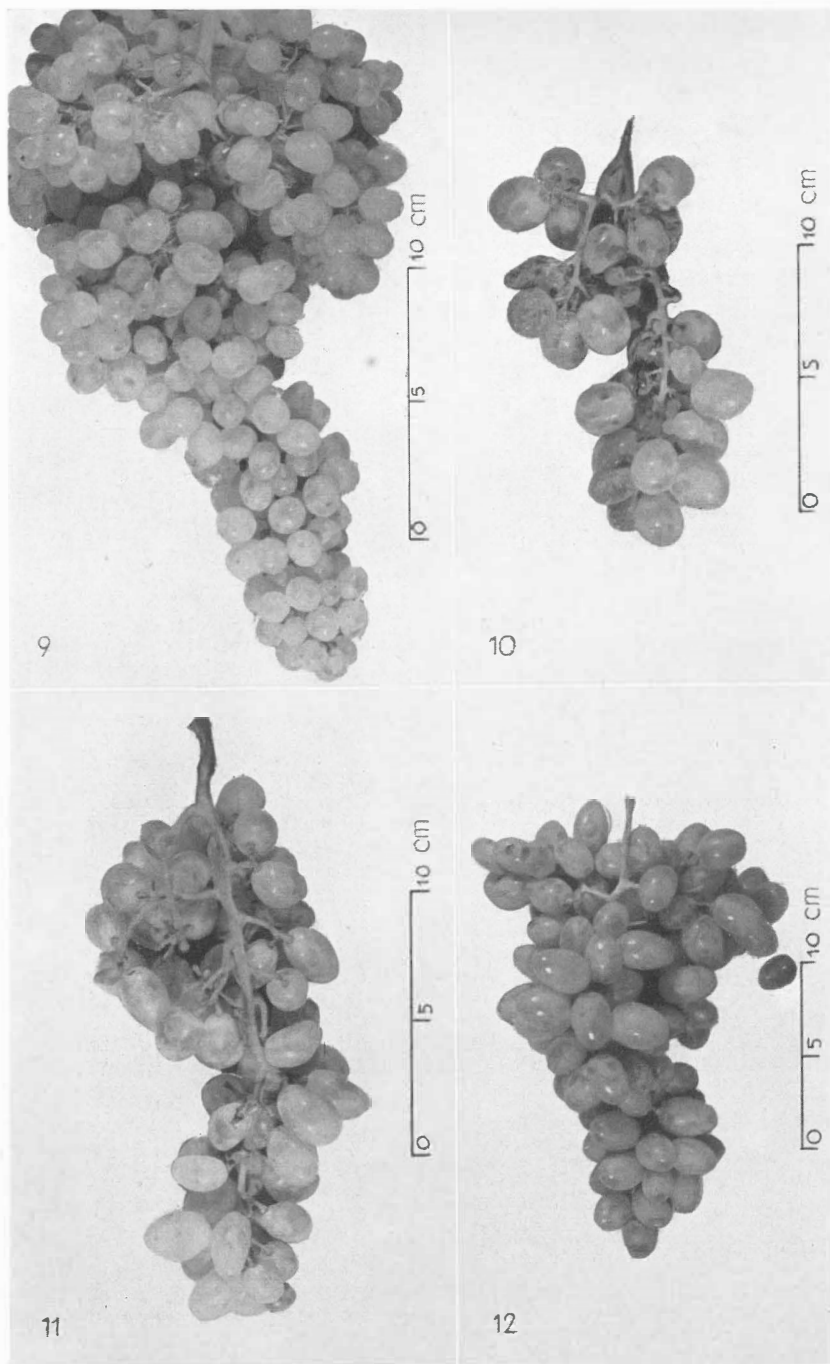


Fig. 9 Kishmishi-i-Shamali; Fig. 10 Maska; Fig. 11 Monukka-i-Kaj  
Fig. 12 Monukka-i-Safid

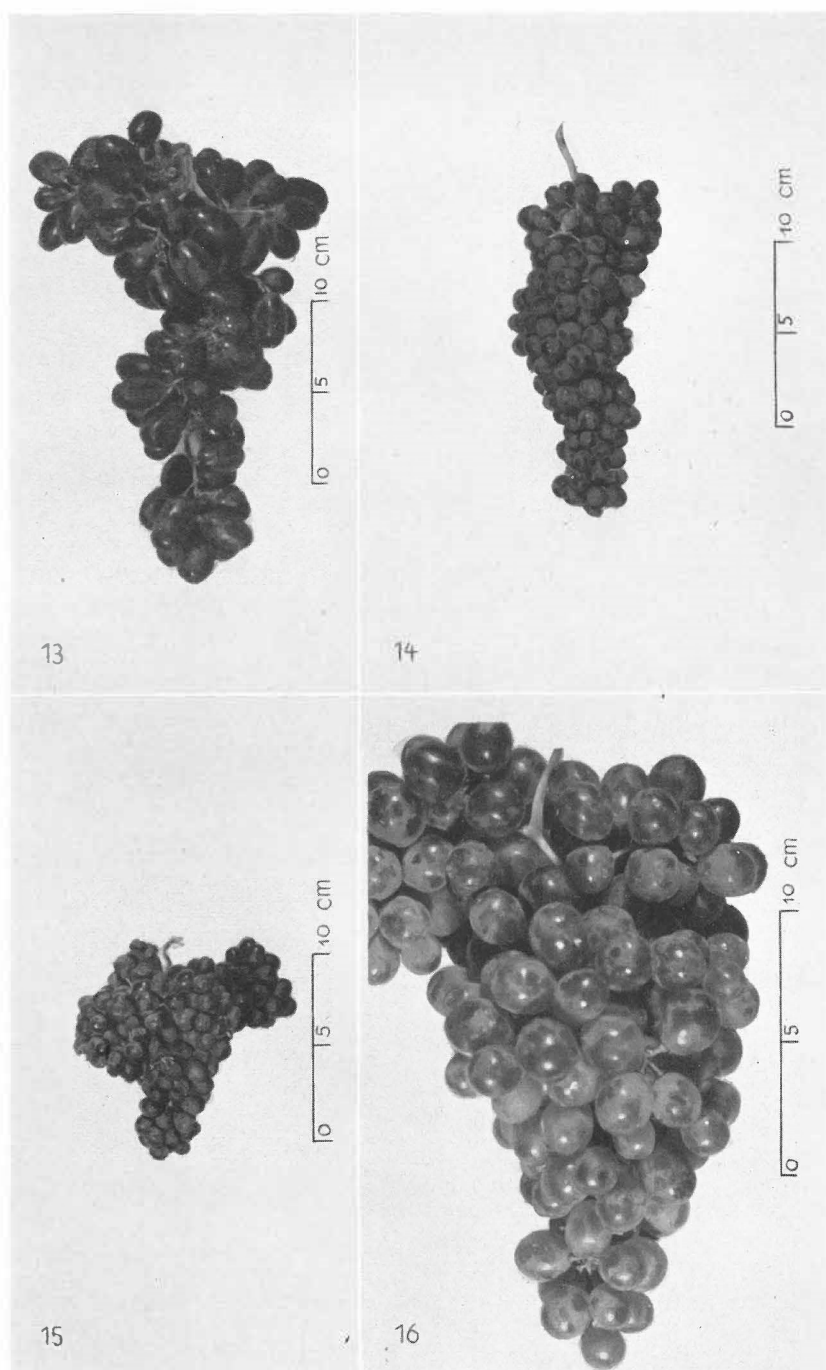


Fig. 13 Monukka-i-Siah; Fig. 14 Na'iri; Fig. 15 Rawcha; Fig. 16 Sahili Gird

**Lal-i-Siah** (Black Lal)

1: Red	10: 15 %	19: 260 g
2: Obovoid	11: 0.55 %	20: Medium, angular
3: Medium large	12: Acid	21: Hard
4: 465 g	13: 2 to 4 + 1	22: Thin, long
5: Heavy	14: Light brown	23: Thick, short
6: Thin and leathery	15: 6.5 mm	24: Prominent
7: Slightly astringent	16: Soft, very astringent	25: Good
8: Light yellow	17: Medium, cylindrical	26: Mid-season
9: Very soft	18: Loose	27: Used fresh

**Maska** (Butter, fig. 10)

1: Yellow	11: 0.46 %	19: 250 g
2: Ovoid	12: Sweet	20: Medium, round
3: Medium	13: 2 to 3	21: Soft
4: 470 g	14: Light brown	22: Thin, short
5: Present	15: 8 mm	23: Skin, short
6: Very soft	16: Hard,	24: Prominent
7: Nonstringent	slightly astringent	25: Good
8: Yellow	17: Medium,	26: Mid-season
9: Soft	short, conical	27: Used fresh; not
10: 22.5 %	18: Loose	commonly grown

**Mir Ahmadi**

1: Golden Yellow	11: 0.35 %	19: 286 g
2: Spherical	12: Very neutral	20: Medium, round
3: Medium large	13: 2 to 3	21: Hard
4: 455 g	14: Light brown	22: Long
5: Present	15: 7.5 mm	23: Sparse
6: Leathery	16: Hard,	24: Prominent
7: Slightly astringent	very astringent	25: Good
8: Light green	17: Medium shouldered,	26: Mid to late-season
9: Hard, least juicy	cylindrical	27: Used fresh, and
10: 27 %	18: Well filled	dried in Herat

**Monukka-i-daba** (Barrel-like Monukka)

1: Red	10: 22 %	19: 300 g
2: Obovoid	11: 0.23 %	20: Medium
3: Medium	12: Sweet and bland	21: Thin, short
4: 200 g	13: 3 to 4	22: Medium
5: Present	14: Light brown	23: Thick
6: Soft	15: 7 mm	24: Prominent
7: Nonstringent	16: Hard,	25: Good
8: Light pink	slightly astringent	26: Mid-season
9: Soft, melting, juicy	17: Medium, conical	27: Used fresh;
	18: Loose	not commonly grown

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**Characteristics:** 1: Berry color; 2: Berry form; 3: Berry size; 4: Weight of 100 berries; 5: Skin bloom; 6: Skin texture; 7: Skin astringency; 8: Pulp color; 9: Pulp texture; 10: Total soluble solids (%); 11: Total acidity percent; 12: Taste and flavor; 13: Number of seeds; 14: Color of seeds; 15: Size of seeds; 16: Texture and astringency, seeds; 17: Cluster size and form; 18: Cluster density; 19: Weight of full cluster; 20: Stem size and form; 21: Stem texture; 22: Pedicle size; 23: Brush; 24: Torus; 25: Adherence; 26: Ripening season; 27: Desirability

**Monukka-i-Kaj** (Curved Monukka, fig. 11)

1: Dull green	10: 25 %	19: 256 g
2: Fusiform	11: 0.42 %	20: Medium, round
3: Medium	12: Sweet and neutral	21: Soft
4: 475 g	13: 1 to 3	22: Medium, long
5: Present	14: Light brown	23: Thick, short
6: Leathery	15: 7 mm	24: Prominent
7: Nonstringent	16: Very hard, astringent	25: Good
8: Yellowish-green	17: Medium, conical	26: Mid-season
9: Hard	18: Well filled	27: Used fresh; not commonly grown

**Monukka-i-Safid** (White Monukka, fig. 12)

1: Bright green	11: 0.61 %	18: Well filled
2: Fusiform	12: Bland	19: 700 g
3: Large	13: 1 to 2	20: Thin, flat
4: 670 g	14: Light brown on a light green background	21: Soft
5: Very slight	15: 7.5 mm	22: Medium to long
6: Tough	16: Very hard, less astringent	23: Thick, short
7: Nonstringent	17: Medium, shouldered	24: Very prominent
8: Bright green		25: Good
9: Tough		26: Late-season
10: 15 %		27: Used fresh

**Monukka-i-Siah** (Black Monukka, fig. 13)

1: Dark red	11: 0.90 %	18: Well filled
2: Fusiform	12: Slightly acid	19: 345 g
3: Large	13: 1 to 2 + 1	20: Thin, flat
4: 549 g	14: Light brown on a green background	21: Soft
5: Present	15: 8.1 mm	22: Medium
6: Tough	16: Hard, slightly astringent	23: Thin, short
7: Nonstringent	17: Shouldered, long, conical	24: Prominent
8: Red		25: Good
9: Tough		26: Late-season
10: 20 %		27: Used fresh, and dried

**Muska**

1: Yellowish-green	10: 24 %	19: 375 g
2: Spherical	11: 0.28 %	20: Large, round
3: Large	12: Bland	21: Hard
4: 665 g	13: 1 to 2	22: Long
5: Present	14: Light brown	23: Scanty
6: Soft	15: 7.5 mm	24: Very prominent
7: Nonstringent	16: Hard and astringent	25: Well
8: Yellow	17: Medium, conical	26: Mid-season
9: Crips, melting	18: Well filled	27: Used fresh; very tender

**Muskagee**

1: Greenish-yellow	10: 22.5 %	19: 300 g
2: Spherical	11: 0.24 %	20: Thin, round
3: Medium to large	12: Bland	21: Soft
4: 550 g	13: Mostly 2	22: Medium
5: Present	14: Greenish-brown	23: Scanty
6: Soft	15: 7.7 m	24: Prominent
7: Nonstringent	16: Hard, astringent	25: Well
8: Yellow	17: Medium, conical	26: Mid-season
9: Soft	18: Well filled	27: Used fresh in Herat

**Nadiri** (After the late King Nadir Shah, fig. 14)

1: Dull red	10: 20 %	19: 180 g
2: Spherical	11: 0.65 %	20: Medium round
3: Very small	12: Mildly acid	21: Soft
4: 110 g	13: 2 small seeds	22: Very thin, short
5: Heavy	14: Light green	23: Very thin, very short
6: Leathery	15: 1.5 to 2.0 mm	24: Slightly prominent
7: Nonastringent	16: —	25: Good
8: Red	17: Small, cylindrical	26: Mid-season
9: Soft	18: Very compact	27: Used fresh

**Pushingee Qualamak**

1: Golden yellow	10: 25 %	19: 580 to 2700 g
2: Cylindrical	11: 0.38 %	20: Medium round
3: Medium small	12: Neutral	21: Soft
4: 255 g	13: Seedless	22: Medium
5: Present	14: —	23: Thin
6: Soft	15: —	24: Slightly prominent
7: Very astringent	16: —	25: Good
8: Yellow	17: Large, winged, cylindrical	26: Mid to late-season
9: Soft	18: Well filled	27: Consumed fresh; Table grape of Herat

**Quadhari Haita**

1: Light yellow	11: 0.28 %	19: 408 to 1200 g
2: Ellipsoidal	12: Sweet and neutral	20: Medium, round
3: Medium	13: 1 to 2 (some times 2 aborted ones)	21: Hard
4: 675 g	14: Yellow neck, brown body	22: Thick
5: Present	15: 8.2 mm	23: Scanty
6: Hard	16: Hard	24: Prominent
7: Nonastringent	17: Large, short, conical	25: Good
8: Yellow	18: Very compact	26: Late-season
9: Hard		27: Used fresh: Stores well; good raisins, Kandahar
10: 25 %		

**Qualamak**

1: Yellow	10: 25 %	19: 333 g
2: Ellipsoidal	11: 0.39 %	20: Medium, round
3: Medium	12: Sweet and slightly acid	21: Soft
4: 370 g	13: 2 to 3	22: Long
5: Present	14: Brown	23: Thick and short
6: Somewhat leathery	15: 5.5 mm	24: Very prominent
7: Nonastringent	16: Soft, astringent	25: Good
8: Light yellow	17: Cylindrical	26: Mid to late-season
9: Soft	18: Well filled	27: Common table grape of Kandahar

**Characteristics:** 1: Berry color; 2: Berry form; 3: Berry size; 4: Weight of 100 berries; 5: Skin bloom; 6: Skin texture; 7: Skin astringency; 8: Pulp color; 9: Pulp texture; 10: Total soluble solids (%); 11: Total acidity percent; 12: Taste and flavor; 13: Number of seeds; 14: Color of seeds; 15: Size of seeds; 16: Texture and astringency, seeds; 17: Cluster size and form; 18: Cluster density; 19: Weight of full cluster; 20: Stem size and form; 21: Stem texture; 22: Pedicle size; 23: Brush; 24: Torus; 25: Adherence; 26: Ripening season; 27: Desirability



**Rawcha** (Early ripener, fig. 15)

1: Dark red	10: 17 %	20: Thick, round
2: Obovoid	11: 0.76 %	21: Soft
3: Very small	12: Neutral	22: Very thin and short
4: 95 g	13: 2 seeds (as if aborted)	23: Very thin, very short
5: Heavy	14: Bright red	24: Slightly prominent
6: Thin and soft	15: 3.0 mm	25: After 3 days on the bunch it shatters
7: Nonstringent	16: Seedless	26: Early-season
8: Yellowish-pink	17: Small, short, conical	27: Ripening early; brings good price
9: Very soft	18: Very compact	
	19: 125 g	

**Sahibi-i-Siah** (Black Lord)

1: Dull red	10: 22.5 %	19: 265 g
2: Truncate	11: 0.48 %	20: Thin, flat
3: Medium large	12: Neutral	21: Soft
4: 355 g	13: 1 to 2	22: Thin, long
5: Present	14: Light brown	23: Medium
6: Thin and soft	15: 6.5 mm	24: Slightly prominent
7: Nonstringent	16: Soft and astringent	25: Good
8: Green	17: Small, short, conical	26: Mid to late-season
9: Melting	18: Somewhat loose	27: Used fresh; good table grape

**Sahibi Gird** (Round Lord, fig. 16)

1: Pinkish-red with light pink	9: Very soft	19: 670 g
2: Semi-mature berries obvoid	10: 18 %	20: Thick, flat
3: Medium large	11: 0.41 %	21: Soft
4: 425 g	12: Neutral	22: Thick, short
5: Present	13: 1 to 3	23: Medium, long
6: Leathery to soft	14: Brown	24: Prominent
7: Nonstringent	15: 6 mm	25: Good
8: Greenish-red	16: Slightly astringent	26: Mid-season
	17: Shouldered, conical	27: Used fresh; not commonly grown
	18: Very compact	

**Sakhricha Safid**

1: Bronze	10: 29 %	19: 217 g
2: Spherical	11: 0.21 %	20: Large, round
3: Medium	12: Very sweet	21: Hard
4: 405 g	13: Generally 4	22: Thin, short
5: Present	14: Light brown	23: Thin, short
6: Soft	15: 7.5 mm	24: Prominent
7: Nonstringent	16: Hard, less astringent	25: Good
8: Yellow	17: Medium, short, conical	26: Late-season
9: Melting	18: Well filled	27: Used fresh, enjoys long storage period

**Shoortak**

1: Yellowish-green	10: 24.5 %	19: 290 g
2: Ovoid	11: 0.29 %	20: Medium, round
3: Medium	12: Bland	21: Hard
4: 440 g	13: 1 to 2	22: Long
5: Present	14: Brown	23: Scanty
6: Soft	15: 7 mm	24: Prominent
7: Nonstringent	16: Soft, nonstringent	25: Good
8: Yellow	17: Medium, conical	26: Late-season
9: Soft	18: Well filled	27: Used fresh; stores well, Mazar-i-Sharif

**Sirah Kishmish**

- |                 |                   |  |
|-----------------|-------------------|--|
| 1: Red          | 10: 24 %          | 19: 273 g                                |
| 2: Ellipsoidal  | 11: 0.32 %        | 20: Thick, round                         |
| 3: Medium small | 12: Very sweet    | 21: Tough                                |
| 4: 190 g        | 13: Seedless      | 22: Small                                |
| 5: Heavy        | 14: —             | 23: Short, scanty                        |
| 6: Very soft    | 15: —             | 24: Not prominent                        |
| 7: Nonstringent | 16: —             | 25: Good                                 |
| 8: Pinkish-red  | 17: Long, conical | 26: Mid to late-season                   |
| 9: Very soft    | 18: Compact       | 27: Used fresh, and dried<br>in Kandahar |

**Taiffi**

- |                    |                                  |  |
|--------------------|----------------------------------|--|
| 1: White and pink  | 10: 22.5 %                       | 19: 480 g                                      |
| 2: Ellipsoidal     | 11: 0.28 %                       | 20: Large, round                               |
| 3: Medium small    | 12: Neutral                      | 21: Very hard                                  |
| 4: 455 g           | 13: 3 to 4                       | 22: Stumpy                                     |
| 5: Extreme         | 14: Reddish-brown                | 23: Thin                                       |
| 6: Leathery        | 15: 6.5 mm                       | 24: Very prominent                             |
| 7: Very astringent | 16: Soft, slightly<br>astringent | 25: Very good                                  |
| 8: Light pink      | 17: Large, winged                | 26: Very late                                  |
| 9: Very hard       | 18: Compact                      | 27: Used fresh; stores<br>well, Mazar-i-Sharif |

**Tandaan**

- |                   |                                |                                       |
|-------------------|--------------------------------|---------------------------------------|
| 1: Pinkish-yellow | 11: 0.34 %                     | 19: 590 g                             |
| 2: Spherical      | 12: Neutral                    | 20: Medium, round                     |
| 3: Medium large   | 13: 2 to 3                     | 21: Soft                              |
| 4: 644 g          | 14: Brown                      | 22: Long                              |
| 5: Heavy          | 15: 8.3 mm                     | 23: Thick and short                   |
| 6: Soft           | 16: Very hard,<br>astringent   | 24: Very prominent                    |
| 7: Nonstringent   | 17: Shouldered,<br>cylindrical | 25: Good                              |
| 8: Light yellow   | 18: Well filled to compact     | 26: Mid to late-season                |
| 9: Very soft      |                                | 27: Common table grape<br>of Kandahar |
| 10: 21 %          |                                |                                       |

**Toqui**

- |                        |                         |   |
|------------------------|-------------------------|---|
| 1: Dark red            | 10: 27 %                | 20: Large, round  |
| 2: Spherical           | 11: 0.40 %              | 21: Hard  |
| 3: Medium large        | 12: Sweet and acidic    | 22: Large   |
| 4: 510 g               | 13: 2 to 3, mostly 3    | 23: Profuse   |
| 5: Heavy               | 14: Light brown         | 24: Very prominent  |
| 6: Very leathery       | 15: 9.7 mm              | 25: Good  |
| 7: Slightly astringent | 16: Brittle, astringent | 26: Late-season   |
| 8: Light green         | 17: Large, cylindrical  | 27: Used for vinegar<br>production;<br>eaten fresh in Herat |
| 9: Soft                | 18: Very compact        |   |
|                        | 19: 720 g               |   |

*eingegangen am 15. 9. 1960*