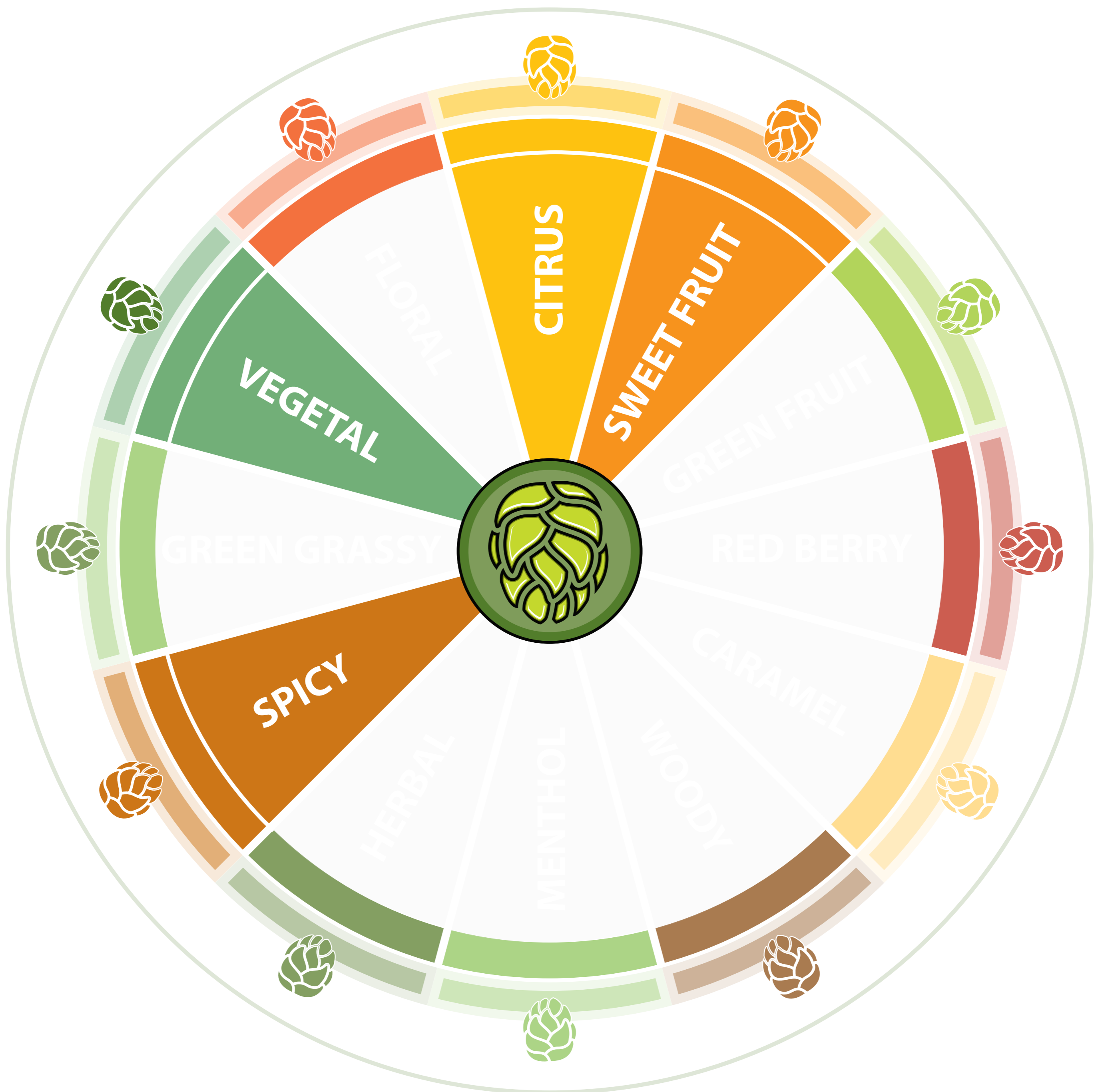


COLUMBUS

UNITED STATES



COLUMBUS, TOMAHAWK® AND ZEUS (CTZ) ARE SUPER HIGH ALPHA VARIETIES. THEY SHARE THE SAME FEMALE PARENT AS NUGGET MAKING THEM AT LEAST HALF SISTERS TO NUGGET. THE CTZ VARIETIES ARE CURRENTLY USED ALMOST EXCLUSIVELY FOR BEER BITTERING. FLAVORS: LEMON, BLACK PEPPER, GREEN ONION, MANGO.

TECHNICAL DATA

ALPHA (%): 15.0-17.0

BETA (%): 4.5-5.0

COHUMULONE (% OF ALPHA ACIDS): 28-32

TOTAL OIL (ML/100G): 2.5-3.5

MYRCENE (% OF TOTAL OIL): 50-60

HUMULENE (% OF TOTAL OIL): 12-18

CARYOPHYLLENE (% OF TOTAL OIL): 9-11

FARNESENE (% OF TOTAL OIL): <1

LINALOOL (% OF TOTAL OIL): 1-2

TOTAL POLYPHENOLS (%): 4.5-5.5



WILLAMETTE VALLEY HOPS