From 2014 to 2015, 33.5 million tons of durum wheat were harvested worldwide, which was dwarfed by the 729 million tons of common wheat harvested during that same period (North Dakota Wheat Commission, 2015). There are two important reasons to explain this production difference: (i) durum grain, which has the hardest kernel texture of all wheats, requires specialized processing and (ii) the semolina produced from the specialized milling of durum grain lacks the culinary versatility of common wheat flour (Morris and Fuerst, 2015). As a result, durum wheat is simply less versatile than common wheat and thus has lower consumer demand (Morris et al., 2011; Morris et al., 2015). However, durum is widely grown and is a competitive crop agronomically in regions with low annual rainfall such as Northern Africa, the Mediterranean Basin, the Middle East, India, Canada, Australia, and Mexico because of its tolerance of biotic and abiotic stresses and adaptability to semiarid climates (Dias and Lidon, 2009; Mas-trangelo et al., 2005; Karimizadeh and Mohammadi, 2011; Kaur et al., 2015; Marti and Slafer, 2014).

Because of the hard kernel texture, durum grain is routinely milled on specialized mills to produce semolina, whose coarse end-use quality is a result of the hard kernel texture.