CONTENTS

Preface ix
Acknowledgments xiii
Contributors xv

1. Breeding Noodle Wheat in China
   Zhonghu He, Xianchun Xia, and Yan Zhang 1

2. Breeding for Dual-Purpose Hard White Wheat in the United States:
   Noodles and Pan Bread

3. Wheat Milling and Flour Quality Analysis for Noodles in Japan
   Hideki Okusu, Syunsuke Otsubo, and James Dexter 57

4. Wheat Milling and Flour Quality Analysis for Noodles in Taiwan
   C. C. Chen and Shu-ying (Sophia) Yang 75

5. Noodle Processing Technology
   Gary G. Hou, Syunsuke Otsubo, Hideki Okusu, and Lanbin Shen 99

6. Instant Noodle Seasonings
   Kerry Fabrizio, Rajesh Potineni, and Kim Gray 141

7. Packaging of Noodle Products
   Qingyue Ling 155

8. Laboratory Pilot-Scale Asian Noodle Manufacturing and Evaluation Protocols
   Gary G. Hou 183

9. Objective Evaluation of Noodles
   David W. Hatcher 227

10. Sensory Evaluation of Noodles
    Bin Xiao Fu and Linda Malcolmson 251
11. Effects of Flour Protein and Starch on Noodle Quality
   Byung-Kee Baik
   261

12. Effects of Polyphenol Oxidase on Noodle Color:
    Mechanisms, Measurement, and Improvement
   E. Patrick Fuerst, James V. Anderson, and Craig F. Morris
   285

13. Effects of Flour Characteristics on Noodle Texture
   Andrew S. Ross and Graham B. Crosbie
   313

   Gary G. Hou, Syunsuke Otsubo, Verónica Jiménez Montaño, and Julio González
   331

15. Quality Assurance Programs for Instant Noodle Production
   Sumonrut Kamolchote, Toh Tian Seng, Julio González, and Gary G. Hou
   363

16. Rice and Starch-Based Noodles
   Zhan-Hui Lu and Lilia S. Collado
   393

Index
   433

While it is still being debated when noodles were introduced into Italy in 1296 on his return from China, there is one case about where noodles may have been brought to the Italians, and the Arabs have all claimed they were first. However, the discovery of a pot of noodles in 2005 by Chinese archaeologists in China may have finally settled the debate. Noodles are more than 2000 years old and have appeared in a Chinese book written in AD 25 and 220. The noodles were thin, long, and yellow in color. They resemble a noodle that is made by repeatedly pressing out that these 4000-year-old noodles are very similar to how they are made today.

Some historical time later, Chinese noodles eventually evolved into diverse formats for local cuisines. Today, Asian noodles are consumed worldwide. By combining modern science and processing, to be produced at small-scale levels, processing and manufacturing plants with consistent quality is possible.

Asian noodles and certain Italian pasta are confusing to consumers because they are similar even though the causes contributing to the ongoing debate may be related or have a common origin. Asian noodles are made by repeatedly pressing out dough, a soup. In contrast, authentic pasta is made with a dough that is processed by sheeting or extrusion technology. This type of pasta is durum semolina and water mixed together that eventually evolves into diverse noodle types. Some historical time later, Chinese noodles eventually evolved into diverse formats for local cuisines. Today, Asian noodles are consumed worldwide. By combining modern science and processing, Asian noodles can be produced at small-scale levels, processing and manufacturing plants with consistent quality is possible.

Outside of Asia, noodles often are associated with soups or stir-fried dishes. Rice noodles are thought of as thin strips, raw materials, including but not limited to...