Food powders obtained by spray drying, especially those based on sugar-rich materials like fruit juices or honey, usually contain a substantial amount of carrier material. The addition of such carriers is required to increase the glass transition temperature of the material; otherwise it is not possible to obtain the food powder. However, traditional carriers used for such purpose, like maltodextrin, Arabic gum, or modified starch, do not offer any additional health benefits. Usually, about 50% of the final powder product is a carrier material, which causes the product quality not to be fully accepted by the final user. Thus, nowadays, there is a trend to replace such traditional carriers by novel sustainable and healthy carriers (SHC) for the production of added-value high-quality spray dried powders. This approach is also sometimes coupled with the management of food industry by-products, which are valorized for the preparation of SHC. For example, the application of an orange juice by-product or prebiotic plant-based fiber was recently investigated as a spray drying carrier. The powders obtained with the addition of SHC should have an increased nutritional value and acceptable physical properties.

This special issue encourages the submission of high-quality original research and review articles, covering the recent advancements on the improved quality of spray dried food powders obtained with the addition of novel sustainable and healthy carrier (SHC) materials.

Potential topics include but are not limited to the following:

- Investigations into the applications of SHC during the spray drying process of selected food materials (including sugar-rich materials)
- Characterizations and comparisons of the quality of food powders obtained with the use of SHC in terms of nutritional value
- Characterizations and comparisons of the quality of food powders obtained with the use of SHC in terms of the functional and physical properties
- The application of powders containing SHC in real food systems for their quality enhancement in terms of nutritional, functional, and physical properties
- Comparisons between types of SHC, and between SHC and traditional carrier materials in terms of the resulting food quality

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Papers are published upon acceptance, regardless of the Special Issue publication date.