Researchers: Zerhoune Messaoudi, Ph.D., K. Semaoui, A. Rahou, and L. Ait Haddou
Research Institution: Department of Arboriculture—Viticulture, National School of Agriculture, Meknes, Morocco, and Laboratory of Biology, Faculty of Sciences, University Moulay Ismail, Meknes, Morocco
Variety: Sefri
Location: Tadla, Morocco
Experimental design: A pomegranate orchard was selected and divided into three replicates for three treatments in a completely randomized design. The objective of the study was to evaluate the effects of Vitazyme and Protifert LMW 6.3 on pomegranate fruit yield and quality under hot and dry North African conditions.

| Control | Vitazyme | Protifert LMW 6.3 |

Fertilization: unknown
Vitazyme application: Four spray applications were made over the trees, using a 1.3 ml/liter dilution rate: end of flowering, end of petal fall, fruit set, and rapid fruit growth.
Protifert LMW 6.3 application: Four spray applications were made to the leaves, using a 4.0 ml/liter dilution rate: end of flowering, end of petal fall, fruit set, and rapid fruit growth. Protifert LMW 6.3 is a fertilizer containing 8% organic nitrogen, 25% organic carbon, and 39% total amino acids, of which 13% are free amino acids. It is made by Sicit 2000, an Italian company.
Quality results: A number of parameters were measured:
- Fruit width
- Fruit length
- Fruit weight
- Fruit cracking
- Fruit juice content
- Edible part: Fruit weight
- Sugar content

Both Vitazyme and Protifert significantly improved most of these quality parameters, and in particular reduced the incidence of cracking.

Yield results:

<table>
<thead>
<tr>
<th>Yield Increase</th>
<th>Percent increase above the control</th>
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</thead>
<tbody>
<tr>
<td>Protifert</td>
<td>21*</td>
</tr>
<tr>
<td>Vitazyme</td>
<td>15*</td>
</tr>
</tbody>
</table>

*Significantly greater than the control.

Conclusions: A pomegranate study in Morocco revealed that both Vitazyme and Protifert LMW 6.3 significantly improved fruit yield, by 15 and 21%, respectively. Moreover, both products improved characteristics quality of the fruit including fruit weight, length, and width, fresh juice content, edible part: fruit weight, and sugar content. Fruit cracking was reduced as well. A comparison of the two products was not totally legitimate because Protifert LMW 6.3 is a fertilizer material, containing certain levels of major and micro-elements, whereas Vitazyme contains only biostimulant active agents. The products are proven to be excellent supplements to pomegranate production in North Africa.