# VITALMEDIX ®

### **APPLICATIONS**

- Immune System Support
- Inflammatory Response Support
- Blood Sugar Support
- Athletic Support



#### INTRODUCTION

VitalMedix is a proprietary blend of hydro-ethanol extracts from *moringa* leaf (*Moringa oleifera*) and Cat's Claw bark (*Uncaria tomentosa*) which is also known as Samento. *M. oleifera* contains micronutrients such as calcium, iron, potassium, vitamin A and carotenoids, in addition to polyphenols such as phenolic acids and flavonoids, glucosinolates, isothiocyanates, tannins and saponins.<sup>1,2</sup> The main polyphenols are quercetin, myrecytin, and kaempferol.<sup>2</sup> *M. oleifera* may help with immune system support,<sup>3</sup> healthy inflammatory response support,<sup>4</sup> blood glucose support,<sup>5,6</sup> and athletic support.<sup>\*7,8</sup> Samento is extracted from the rare pentacyclic chemotype of *U. tomentosa*, which is TOA-free, with levels in trace amounts or undetectable. This pentacyclic oxindole alkaloid (POA)-predominant, tetracyclic oxindole alkaloid (TOA)-free form of *U. tomentosa* may help with healthy inflammatory response support.<sup>\*9,10</sup>

VitalMedix is made at our U.S. manufacturing facility using a specialized proprietary extraction process that optimizes the constituents of the herbs in their original, unprocessed state to obtain broad-spectrum concentration. Because our extracts are made in our own facility, we control all aspects of quality, including stringent ID testing, microbial testing, and heavy metal testing. VitalMedix rigorously follows current good manufacturing practices (cGMP), as do our suppliers.

# **IMMUNE SYSTEM SUPPORT**

Both *M. oleifera* and *U. tomentosa* may help to support a healthy immune response and maintain immune system homeostasis.<sup>\*3,11</sup> *M. oleifera* may help to support a healthy antibody response and to maintain neutrophils already within the normal range.<sup>\*3</sup> *U. tomentosa* may help to maintain neutrophil function as well as Th1 and Th2 levels already within the normal range.<sup>\*11,12,13</sup> It should be noted that only TOA-free *U. tomentosa* (such as Samento) may help with immune support.<sup>\*9</sup>

#### **INFLAMMATORY RESPONSE SUPPORT**

*M. oleifera* may help to support a healthy inflammatory response.<sup>\*4,14</sup> In animal studies, it has been shown to help maintain IL-6, TNF-alpha, IL-1-beta, IFN-gamma and NF-kappaB already within the normal range.<sup>\*15,16,17</sup> *U. tomentosa* (pentacyclic chemotype) may also help to maintain and support a healthy inflammatory response.<sup>\*10,18</sup> *U. tomentosa* may help to support NF-kappaB levels already within the normal range in a dose-dependent manner,<sup>18,20</sup> thus supporting both TNF-alpha and IL-1-beta within the normal range.<sup>\*21</sup>

# **BLOOD SUGAR SUPPORT**

Both *M. oleifera* and *U. tomentosa* may help with blood sugar support.<sup>\*5,6,21,22,23</sup> *M. oleifera* may help to inhibit the enzyme alpha-amylase, delaying the breakdown of polysaccharides.<sup>5</sup> It may also support healthy insulin secretion and maintain healthy glucose levels already within the normal range.<sup>\*5,6</sup> *U. tomentosa* may help to inhibit the enzyme alpha-glucosidase, delaying the absorption of saccharides, and may help to support healthy insulin sensitivity.<sup>\*11,23,24</sup>

# ATHLETIC SUPPORT

*M. oleifera* may help with athletic support, which is attributed to its polyphenol content.<sup>\*7</sup> It may help to delay the buildup of lactic acid and maintain the efficient metabolism of both glucose and lipids.<sup>\*7,8,25</sup>

# SAFETY AND CAUTIONS

*M. oleifera* is generally well-tolerated.<sup>26</sup> *M. oleifera* may have additive effects when taken with antidiabetic drugs<sup>27,28</sup> or antihypertensive drugs.<sup>29</sup> *M. oleifera* may decrease the effectiveness of T4-containing drugs as it may inhibit the conversion of T4 to T3.<sup>30</sup> There has been one case report of Stevens-Johnson syndrome following the ingestion of food containing *M. oleifera* leaves.<sup>31</sup> *M. oleifera* may inhibit P450 CYP3A4 enzymes and therefore may slow the metabolism of drugs metabolized by CYP3A4.<sup>32</sup>

*U. tomentosa* is generally well tolerated. Gastrointestinal effects such as nausea, constipation, and diarrhea have been reported, though generally not at greater rates than with placebo.<sup>33</sup> *U. tomentosa* may inhibit P450 CYP3A4 enzymes and therefore may slow the metabolism of drugs metabolized by CYP3A4.<sup>34</sup> *U. tomentosa* should be avoided in those taking immunosuppressants, as it may interfere with immunosuppressant therapy.<sup>35</sup> *U. tomentosa* may have additive effects with anticoagulants, generally attributed to the TOAs rhynchophylline,<sup>36</sup> as well as additive effects with antihypertensive drugs, generally attributed to the TOAs rhynchophylline.<sup>37,38</sup> As a reminder, Samento is TOA-free, with levels in trace amounts or undetectable.

Safety not documented in breastfeeding or pregnant women, or in children under 3 years of age due to insufficient safety research.

\* This statement has not been evaluated by the Food and Drug Administration. This product is not intended to treat, cure, or prevent any diseases.



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