MaquiBright®
Standardised Maqui Berry Extract, Branded, Patented, and Safe (GRAS)

Market Applications
Dry Eye Symptoms
Eye Health
Asthenopia
MaquiBright® is the only extract of maqui berry providing rich purified flavonoids and is standardised to bear a minimum of 25% delphinidins and a minimum of 35% total anthocyanins.

- MaquiBright® supports eye health
- MaquiBright® improves tear fluid generation
- MaquiBright® quenches bothersome symptoms, like irritation, blurred vision, sensitivity to light and more.

**LIFESTYLE AND DRY EYE SYMPTOMS**

Lifestyle is contributing to the growth of dry eye related symptoms and may affect anyone at times. Unfavorable ambient conditions, such as central heating, air-conditioning or decreased pressure in airplanes, lead to accelerated evaporation of tear fluid. Dry eyes commonly develop as side effect of medications, such as anti-histamines. Among the greatest lifestyle factors contributing to dry eye is the increase in exposure to digital screens (humans tend to open their eyes wider and blink less when looking at screens). Women more commonly experience dry eyes than men and typically symptoms develop with increasing age.

**CAUSES OF EYE DRYNESS:**
- higher age (≥ 55 years)
- women more affected
- intensive use of smart phones, tablets, etc.
- contact lenses
- cigarette smoke
- certain medications
- disease (Sjogren’s syndrome)
- central heating, air conditioning

**SYMPTOMS OF DRY EYES:**
- redness
- stinging
- itching
- foreign body sensation
- sensitivity to light
- blurred vision

**TEAR FLUID NOURISHES CORNEA:**
- glucose
- vitamin C
- amino acids
- minerals
- humidity
- mucin (viscosity)
- lipocalin (carries lipids)
- lacritin (promotes health of corneal epithelium)

**TEAR FLUID DEFIES INFECTIONS:**
- lysozyme
- immunoglobins
- lactoferrin

**RESTORES FLUID RELEASE FROM LACHRYMAL GLAND CELLS:**

In pre-clinical studies, MaquiBright® was proven to be superior to other berry extracts for restoration of healthy tear fluid secretion. Respectively, bilberry extract displayed only 30% of the efficacy of MaquiBright® and black currant extract only 21%, respectively [Nakamura et al., 2014].
MaquiBright® delphinidins quench oxidative stress and hence restore healthy tear fluid production [Nakamura et al., 2014].

**SPECIFIC DELPHINIDINS SPECIES AS ACTIVE PRINCIPAL**

MaquiBright® delphinidins have the ability to be absorbed into the cells of the lacrimal gland, protecting cells from oxidative stress [Nakamura et al., 2014].

MaquiBright® delphinidins quench reactive oxygen species in glands.

Delphinidins common in maqui berry are incorporated more efficiently than other anthocyanin species.

The tear fluid generation was measured by the standard Schirmer’s test, which requires an insertion of graded strip of blotting paper under a closed eyelid.

Two groups of individuals with moderately dry eyes were treated with 30 or 60 mg MaquiBright® per day over a period of two months [Hitoe et al., 2014].
MaquiBright® improved tear fluid production in all study participants after 30 and 60 days of treatment. The group supplemented with 60 mg MaquiBright® per day showed statistical significant tear production increase after 30 and 60 days treatment [Hitoe et al., 2014].

MaquiBright® improved tear fluid production in all study participants after 30 and 60 days of treatment. The group supplemented with 60 mg MaquiBright® per day showed statistical significant tear production increase after 30 and 60 days treatment [Hitoe et al., 2014].

Study participants treated with 30 or 60 mg per day of MaquiBright® experienced significant symptom relief related to eye dryness, using a validated Dry Eye Quality of Life questionnaire [Hitoe et al., 2014].

References
