ꯍꯥꯏꯄꯣꯀꯦꯜꯁꯦꯃꯤꯌꯥ ꯍꯥꯏꯕꯁꯤ ꯁꯥꯁꯤꯡꯒꯤ ꯏꯗ ꯌꯥꯎꯕ
ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯆꯥꯡ ꯍꯅꯊꯔꯛꯄ ꯍꯥꯏꯕꯗꯤ ꯖꯤꯕꯗꯨꯒꯤ ꯃꯁꯥꯗ
ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯑꯋꯥꯠꯄ ꯂꯩꯔꯛꯄꯕꯨ ꯈꯪꯅꯩ꯫ ꯃꯁꯤ ꯄꯦꯔꯥꯊꯥꯏꯔꯣꯏꯗ
ꯒ꯭ꯂꯥꯟꯗꯁꯤꯡ ꯑꯃꯗꯤ ꯀꯤꯗꯅꯤꯗ ꯑꯁꯣꯏꯕ ꯂꯩꯕꯗꯒꯤ ꯑꯣꯏꯔꯛꯄ
ꯌꯥꯏ꯫ ꯃꯤ ꯅꯠꯇ꯭ꯔꯒ ꯁꯥꯗꯨꯅ ꯆꯥꯔꯤꯕ ꯆꯤꯟꯖꯥꯛ ꯑꯃꯗꯤ ꯑꯇꯩ ꯍꯤꯗꯥꯛ
ꯂꯥꯡꯊꯛ ꯈꯔꯅ ꯑꯣꯏꯍꯜꯂꯛꯄꯁꯨ ꯌꯥꯏ꯫ ꯂꯥꯏꯅꯥꯁꯤ ꯂꯩꯔꯕ ꯁꯥ ꯑꯃꯤ
ꯇꯣꯡꯁꯥꯗ ꯆꯤꯛꯄ ꯅꯥꯕ, ꯈꯣꯡꯁꯥ ꯑꯃꯗꯤ ꯈꯨꯠꯁꯥꯁꯤꯡ ꯖꯤꯡ ꯖꯤꯡ
ꯂꯥꯎꯕ ꯐꯥꯎꯔꯛꯏ꯫ ꯀꯔꯤꯒꯨꯝꯕ ꯃꯇꯝꯗ ꯀꯥꯎꯖꯟ ꯊꯤꯕ, ꯋꯥꯈꯜ
ꯆꯃꯝꯅꯒꯟꯕꯒꯤ ꯁꯤꯝꯇꯣꯝꯁꯤꯡ ꯂꯥꯛꯄꯁꯨ ꯌꯥꯏ꯫ ꯀꯤꯂꯣꯒ꯭ꯔꯥꯝ
70 ꯃꯨꯛ ꯂꯨꯝꯕ ꯃꯤ ꯑꯃꯗ ꯀꯦꯜꯁꯤꯌꯝ ꯀꯤꯂꯣꯒ꯭ꯔꯥꯝ 1.2 ꯒꯨꯝꯕ \

ꯥꯎꯏ꯫ ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯆꯥꯡ ꯍꯟꯊꯅ ꯀꯨꯏꯅ ꯌꯥꯎꯔꯛꯄꯗꯒꯤ
ꯑꯣꯁꯇꯤꯑꯣꯄꯣꯔꯣꯁꯤꯁ ꯑꯃꯗꯤ ꯁꯔꯨꯛ ꯀꯥꯏꯒꯟꯕꯒꯤ ꯑꯅꯥꯕꯁꯤꯡ
ꯑꯣꯏꯔꯛꯄ ꯌꯥꯏ꯫ ꯍꯥꯏꯄꯣꯀꯦꯜꯁꯦꯃꯤꯌꯥꯒꯤ ꯑꯅꯥꯕꯁꯤ ꯂꯩꯍꯜꯂꯣꯏ
ꯍꯥꯏꯔꯕꯗꯤ ꯀꯦꯜꯁꯤꯌꯝ ꯌꯥꯝꯅ ꯌꯥꯎꯕ ꯁꯪꯒꯣꯝꯒꯨꯝꯕ ꯇꯣꯏꯅ ꯆꯥꯕꯒꯤ
ꯃꯊꯧ ꯇꯥꯏ꯫ ꯑꯗꯨꯕꯨ ꯂꯨꯔꯤꯕꯗꯤ, ꯁꯪꯒꯣꯝ ꯊꯣꯛꯄꯤ ꯁꯟꯕꯤꯗꯨꯁꯨ
ꯍꯥꯏꯄꯣꯀꯦꯜꯁꯦꯃꯤꯌꯥꯅ ꯅꯥꯔꯝꯂꯕꯗꯤ ꯁꯪꯒꯣꯝꯗꯨꯗ ꯌꯥꯎꯐꯝ ꯊꯣꯛꯄ
ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯆꯥꯡ ꯌꯥꯎꯔꯝꯂꯣꯏ꯫ ꯑꯗꯨꯅ ꯁꯪꯒꯣꯝ ꯄꯨꯊꯣꯛꯂꯤꯕ
ꯐꯥꯝꯁꯤꯡꯅ ꯃꯁꯤꯕꯨ ꯇꯔꯥꯏ ꯇꯔꯥꯏꯅ ꯂꯧꯗꯕ ꯐꯩ꯫ ꯃꯔꯝꯗꯤ ꯂꯥꯏꯅꯥꯁꯤꯅ
ꯃꯤꯔꯣꯟꯕꯒꯤ ꯆꯥꯡ ꯍꯟꯊꯍꯟꯕꯒ ꯂꯣꯏꯅꯅ ꯁꯪꯒꯣꯝ ꯊꯣꯛꯇ꯭ꯔꯕ ꯇꯨꯡ
ꯑꯃꯨꯛ ꯃꯤꯔꯣꯟꯕꯒꯤ ꯃꯇꯝ ꯊꯦꯡꯊꯍꯜꯂꯤ꯫ ꯑꯗꯨꯅ ꯁꯪꯒꯣꯝ ꯁꯨꯝꯕ \

ꯥꯕꯒꯤ ꯃꯇꯝ ꯁꯥꯡꯗꯣꯛꯍꯟꯗꯨꯅ ꯄꯣꯠꯊꯣꯛ ꯍꯟꯊꯍꯜꯂꯤ꯫ ꯃꯁꯤꯒꯤ
ꯐꯤꯚꯝꯁꯤ ꯊꯦꯡꯅꯅꯕꯒꯤꯗꯃꯛ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤ ꯑꯣꯐ ꯋꯤꯁꯀꯤꯟꯁꯟ-

ꯃꯥꯗꯤꯁꯟꯒꯤ ꯊꯤꯖꯤꯜꯂꯣꯏꯁꯤꯡꯅ ꯍꯥꯏꯄꯣꯀꯦꯜꯁꯦꯃꯤꯌꯥꯅ ꯅꯥꯔꯕ
ꯁꯟꯕꯤꯁꯤꯡꯅ ꯁꯪꯒꯣꯝ ꯍꯦꯟꯅ ꯄꯨꯊꯣꯛꯅꯕꯒꯤ ꯄꯥꯝꯕꯩ ꯑꯃ ꯄꯨꯊꯣꯛꯄ
ꯉꯝꯈ꯭ꯔꯦ ꯍꯥꯏꯅ ‘ꯖꯔꯅꯦꯜ ꯑꯣꯐ ꯏꯟꯗꯣꯀ꯭ꯔꯦꯅꯣꯂꯣꯖꯤ’ ꯒꯤ ꯖꯨꯂꯥꯏ
ꯆꯦꯐꯣꯡꯗ ꯐꯣꯡꯗꯣꯛꯈ꯭ꯔꯦ꯫

ꯅꯣꯔꯊ ꯑꯃꯦꯔꯤꯀꯥꯗ ꯀꯦꯜꯁꯤꯌꯝ ꯃꯔꯥꯡ ꯀꯥꯏꯅ ꯌꯥꯎꯕ ꯁꯪꯒꯣꯝꯁꯤ \

ꯥꯝꯅ ꯄꯥꯝꯅꯩ꯫ ꯃꯈꯣꯏꯒꯤ ꯃꯔꯨꯑꯣꯏꯕ ꯀꯦꯜꯁꯤꯌꯝ ꯌꯥꯎꯕ ꯆꯤꯟꯖꯥꯁꯤꯡꯁꯤ
ꯁꯪꯒꯣꯝ, ꯆꯤꯖ ꯑꯃꯗꯤ ꯌꯣꯒꯍꯔꯠꯅ ꯑꯣꯏ꯫ ꯃꯈꯣꯏꯒꯤ ꯑꯄꯥꯝꯕꯁꯤ
ꯐꯪꯍꯟꯅꯕꯒꯤ ꯈ꯭ꯋꯥꯏꯗꯒꯤ ꯃꯔꯨꯑꯣꯏꯕ ꯁꯥꯗꯤ ꯁꯟꯕꯤꯅꯤ꯫ ꯑꯗꯨꯒ ꯃꯐꯝꯁꯤꯗ
ꯂꯩꯕ ꯁꯟꯕꯤ ꯆꯥꯃꯒꯤ ꯃꯅꯨꯡꯗ 5-10 ꯐꯥꯎꯕꯗꯤ ꯍꯥꯏꯄꯣꯀꯦꯜꯁꯦꯃꯤꯌꯥꯅ ꯅꯥꯏ
ꯍꯥꯏꯔꯤ꯫ ꯃꯁꯤ ꯃꯔꯨꯑꯣꯏꯅ ꯁꯟꯕꯤꯁꯤꯡꯗꯨꯅ ꯃꯤꯔꯣꯟꯕ ꯍꯧꯔꯛꯄꯗꯒꯤ
ꯁꯪꯒꯣꯝ ꯁꯨꯝꯂꯤꯕ ꯃꯇꯝꯗꯅ ꯍꯦꯟꯅ ꯊꯦꯡꯅꯩ꯫ ꯑꯗꯨꯕꯨ ꯊꯤꯖꯤꯜꯂꯤꯕ
ꯁꯥꯏꯟꯇꯤꯁꯠꯁꯤꯡꯅ ꯂꯥꯏꯅꯥꯁꯤꯗꯒꯤ ꯉꯥꯛꯊꯣꯛꯅꯕꯒꯤ ꯃꯔꯝꯗ
ꯊꯣꯏꯗꯣꯛꯅ ꯄꯨꯛꯅꯤꯡ ꯂꯨꯞꯂꯝꯗꯦ꯫ ꯃꯗꯨꯒꯤ ꯃꯍꯨꯠꯇ ꯁꯦꯔꯣꯇꯣꯅꯤꯟ
ꯍꯥꯏꯕ ꯍꯣꯔꯃꯣꯟꯁꯤ ꯁꯤꯖꯤꯟꯅꯗꯨꯅ ꯁꯪꯒꯣꯝꯒꯤ ꯄꯣꯠꯊꯣꯛ ꯍꯦꯟꯒꯠꯍꯟꯕ
ꯉꯝꯕ꯭ꯔꯤ ꯍꯥꯏꯕꯒꯤ ꯆꯥꯡꯌꯦꯡꯁꯤꯡ ꯄꯥꯡꯊꯣꯛꯈꯤ꯫ ꯁꯦꯔꯣꯇꯣꯅꯤꯟ
ꯍꯥꯏꯔꯤꯕ ꯍꯣꯔꯃꯣꯟꯁꯤꯅ ꯁꯥ ꯑꯃꯗ ꯅꯨꯡꯉꯥꯏꯕꯒꯤ ꯏꯊꯤꯜ ꯄꯣꯛꯍꯟꯕ
ꯉꯝꯃꯤ꯫ ꯑꯗꯨꯕꯨ ꯍꯥꯟꯅ ꯄꯥꯡꯊꯣꯛꯈꯤꯕ ꯆꯥꯡꯌꯦꯡꯁꯤꯡꯗ ꯁꯦꯔꯣꯇꯣꯅꯤꯟꯅ
ꯎꯆꯤꯁꯤꯡꯗ ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯂꯦꯚꯦꯜ ꯀꯥꯏꯗꯅ ꯊꯝꯕ ꯉꯝꯃꯤ ꯍꯥꯏꯕꯁꯤ
ꯈꯪꯂꯛꯄꯗꯒꯤ ꯌꯨꯅꯤꯚꯔꯁꯤꯇꯤ ꯑꯣꯐ ꯋꯤꯁꯀꯤꯟꯁꯅ- ꯃꯥꯗꯤꯁꯟꯒꯤ ꯭ꯗ.

Laura Hernandez ꯅ ꯂꯨꯆꯤꯡꯕ ꯊꯤꯖꯤꯜꯂꯣꯏꯥꯤꯡꯅ ꯁꯦꯔꯣꯇꯣꯅꯤꯟꯕꯨ
ꯆꯥꯡꯌꯦꯡꯒꯤ ꯄꯣꯠꯂꯝ ꯑꯣꯏꯅ ꯂꯧꯈꯠꯈꯤꯕꯅꯤ꯫ ꯑꯗꯨꯕꯨ ꯃꯈꯣꯏꯅ
ꯁꯦꯔꯣꯇꯣꯅꯤꯟꯃꯛꯇꯤ ꯁꯟꯕꯤꯁꯤꯡꯗ ꯀꯥꯞꯈꯤꯗꯦ꯫ ꯃꯗꯨꯒꯤ ꯃꯊꯛꯇ
5 hydroxy-L-tryptohan ꯍꯥꯏꯕ ꯀꯦꯃꯤꯀꯦꯜꯁꯤ ꯀꯥꯞꯈꯤ꯫

ꯀꯦꯃꯤꯀꯦꯜꯁꯤꯅ ꯁꯟꯁꯤꯡꯒꯤ ꯃꯁꯥ ꯃꯅꯨꯡꯗ ꯆꯪꯈ꯭ꯔꯒ ꯁꯦꯔꯣꯇꯣꯅꯤꯟꯗ
ꯑꯣꯟꯊꯣꯛꯏ꯫

ꯆꯥꯡꯌꯦꯡꯁꯤꯗ ꯊꯤꯖꯤꯜꯂꯣꯏꯁꯤꯡꯅ ꯃꯆꯥ ꯄꯣꯛꯂꯝꯗꯥꯏ \

ꯧꯔꯛꯂꯕꯤ Holstein ꯚꯦꯔꯥꯏꯇꯤꯒꯤ ꯁꯟꯕꯤ 12 ꯑꯃꯁꯨꯡ

Jersey ꯚꯦꯔꯥꯏꯇꯤꯒꯤ ꯁꯟꯕꯤ 12 ꯁꯤꯖꯤꯟꯅꯈꯤ꯫ ꯀꯤꯂꯣꯒꯛꯔꯥꯝ
ꯑꯃ ꯂꯨꯝꯕꯒꯤ ꯆꯥꯡꯗ ꯄꯥꯔꯒ ꯁꯟꯕꯤ ꯑꯃꯗ 5 hydroxy-L-

tryptohan ꯒꯤ ꯃꯤꯂꯤꯒ꯭ꯔꯥꯝ ꯑꯃꯃꯝ ꯅꯨꯃꯤꯠ ꯈꯨꯗꯤꯡꯒꯤ ꯆꯌꯣꯜ
ꯑꯃ ꯆꯨꯞꯅ ꯀꯥꯞꯈꯤ꯫ ꯍꯤꯗꯥꯛ ꯀꯥꯞꯇ꯭ꯔꯤꯉꯩ ꯄꯨꯡ 2,4 ꯑꯃꯁꯨꯡ 8ꯒꯤ
ꯃꯃꯥꯡꯗ ꯁꯟꯕꯤ ꯈꯨꯗꯤꯡꯃꯛꯀꯤ ꯏ ꯂꯧꯈꯤ꯫ ꯀꯥꯞꯈ꯭ꯔꯕ ꯃꯇꯨꯡ ꯄꯨꯡ 2,4
ꯑꯃꯁꯨꯡ 8 ꯂꯩꯔꯒ ꯁꯟꯕꯤꯁꯤꯡꯗꯨꯒꯤ ꯏ ꯂꯧꯔꯝꯃꯤ꯫ ꯃꯆꯥ ꯄꯣꯛꯂꯕ
ꯃꯇꯨꯡꯗ ꯅꯨꯃꯤꯠ 14 ꯅꯤ ꯆꯨꯞꯅ ꯅꯨꯃꯤꯠ ꯈꯨꯗꯤꯡꯒꯤ ꯁꯟꯕꯤꯁꯤꯡꯗꯨꯒꯤ ꯏ
ꯂꯧꯕꯒꯤ ꯊꯕꯛ ꯄꯥꯡꯊꯣꯛꯈꯤ꯫ ꯃꯁꯤꯒꯤ ꯃꯇꯨꯡ ꯅꯨꯃꯤꯠ 30 ꯅꯤ ꯁꯨꯕꯗ
ꯑꯃꯨꯛꯁꯨ ꯏ ꯂꯧꯏ꯫ ꯁꯪꯒꯣꯝꯗꯤ ꯃꯆꯥ ꯄꯣꯛꯂꯕ ꯁꯟꯕꯤꯁꯤꯡꯗꯨꯗꯒꯤ
ꯅꯨꯃꯤꯠ ꯈꯨꯗꯤꯒꯡꯤ ꯂꯧꯔꯝꯃꯤ꯫ ꯑꯁꯨꯝꯅ ꯈꯣꯝꯖꯤꯜꯂꯕ ꯏ ꯑꯃꯁꯨꯡ
ꯁꯪꯒꯣꯝꯁꯤꯡꯗꯨ ꯑꯦꯅꯥꯂꯥꯏꯁꯤꯁ ꯇꯧꯗꯨꯅ ꯌꯦꯡꯕꯗꯒꯤ ꯈꯪꯕ ꯉꯝꯈꯤ ꯃꯗꯨꯗꯤ:

ꯖꯔꯁꯤ ꯁꯟꯕꯤꯁꯤꯡꯒꯤ ꯏ ꯑꯃꯗꯤ ꯁꯪꯒꯣꯝꯗ ꯀꯦꯜꯁꯤꯌꯝ ꯌꯥꯎꯕꯒꯤ
ꯆꯥꯡ ꯁꯟꯅꯥꯎ ꯄꯣꯛꯂꯕ ꯃꯇꯨꯡ ꯅꯨꯃꯤꯠ 30 ꯅꯤ ꯐꯥꯎꯕꯗ ꯍꯦꯟꯒꯠꯂꯛꯄ
ꯊꯦꯡꯅꯔꯝꯃꯤ꯫ ꯑꯗꯨꯕꯨ ꯑꯉꯛꯄ ꯃꯑꯣꯡ ꯑꯃꯗ Holstein

ꯁꯟꯕꯤꯁꯤꯡꯒꯤ ꯏꯗꯗꯤ ꯀꯦꯜꯁꯤꯌꯝ ꯌꯥꯎꯕꯒꯤ ꯆꯥꯡ ꯍꯦꯟꯒꯠꯂꯛꯂꯒ
ꯁꯪꯒꯣꯝꯗꯗꯤ ꯀꯦꯜꯁꯤꯌꯝ ꯌꯥꯎꯕꯒꯤ ꯆꯥꯡ ꯍꯦꯟꯒꯠꯂꯝꯗꯦ꯫ ꯃꯈꯣꯏꯅ
ꯐꯪꯂꯛꯂꯤꯕ ꯑꯁꯤꯗꯒꯤ Serotonin ꯅ ꯏ ꯅꯠꯇꯛꯔꯒ ꯁꯪꯒꯣꯝꯗ
ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯆꯥꯡ ꯍꯦꯟꯘꯤꯍꯟꯕ ꯉꯝꯃꯤ ꯍꯥꯏꯕꯁꯤ ꯃꯌꯦꯛ
ꯁꯦꯡꯂꯦ ꯍꯥꯏꯅ Laura Hernandez ꯅ ꯐꯣꯡꯗꯣꯛꯂꯤ꯫ ꯑꯗꯨꯕꯨ
ꯀꯔꯤꯒꯤꯗꯃꯛꯇ ꯁꯟꯕꯤꯒꯤ ꯕ꯭ꯔꯤꯗ ꯑꯅꯤꯁꯤꯗ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ

WM ꯐꯪꯂꯤꯕꯅꯣ ꯍꯥꯏꯕꯒꯤ ꯃꯇꯥꯡꯗꯗꯤ ꯂꯩꯈꯥꯏ ꯁꯦꯡꯗ꯭ꯔꯤ꯫ ꯑꯗꯨꯅ

Serotonin ꯅ ꯏ ꯅꯠꯇ꯭ꯔꯒ ꯁꯪꯒꯣꯝꯗ ꯀꯦꯜꯁꯤꯌꯝꯒꯤ ꯆꯥꯡ
ꯍꯦꯟꯒꯤꯍꯜꯂꯤꯕꯅꯣ ꯍꯥꯏꯕꯒꯤ ꯃꯇꯥꯡꯗ ꯃꯈꯥ ꯇꯥꯅ ꯊꯤꯖꯤꯟꯈꯤꯒꯅꯤ
ꯍꯥꯏꯔꯤ꯫ ꯑꯗꯨꯕꯨ ꯍꯧꯖꯤꯛ ꯐꯥꯎꯕꯗ ꯂꯩꯈꯥꯏ ꯁꯦꯡꯂꯕ ꯋꯥꯐꯝ ꯑꯃꯗꯤ

Serotonin ꯅ ꯁꯪꯒꯣꯝꯒꯤ ꯄꯣꯠꯊꯣꯛ ꯁꯟꯕꯤꯁꯤꯡꯅ ꯆꯥꯕꯒꯤ ꯍꯩꯅꯕꯤ
ꯑꯃꯗꯤ ꯍꯣꯔꯃꯣꯟꯗ ꯑꯀꯥꯏꯕ ꯑꯃꯠꯇ ꯄꯤꯗꯦ ꯍꯥꯏꯕꯁꯤꯅꯤ꯫

IMPHAL, WEDNESDAY, JANUARY 18, 2017 ꯌꯨꯝꯁꯀꯩꯁ, ꯋꯥꯛꯆꯤꯡꯒꯤ 21 ꯄꯥꯟꯕ, ꯃꯥꯂꯤꯌꯥ ꯀꯨꯝꯁꯤꯡ 3414 ꯍꯨꯏꯌꯦꯟ ꯂꯥꯟꯄꯥꯎ
2 SOjgmOM HUEIYEN LANPAO

ꯍꯨꯏꯌꯦꯟ ꯂꯥꯟꯄꯥꯎ

...ꯑꯦꯗꯤꯇꯔꯗ ꯊꯥꯔꯛꯄ ꯆꯤꯊꯤ...

ꯏꯀꯥꯏꯈꯨꯝꯅꯖꯔꯤꯕ ꯑꯦꯗꯤꯇꯔ,
ꯏꯟꯗꯤꯌꯥ ꯄꯨꯝꯕꯗ
ꯗꯤꯃꯣꯅꯦꯇꯥꯏꯖꯦꯁꯟꯅ ꯃꯔꯝ ꯑꯣꯏꯔꯒ
ꯃꯤꯑꯣꯏ ꯈꯨꯗꯤꯡ ꯍꯤꯡꯅꯕꯒꯤ ꯂꯥꯟꯐꯝꯗ
ꯅꯣꯡꯃꯒꯤ ꯆꯪꯗꯕ ꯌꯥꯗ꯭ꯔꯕ ꯄꯣꯠꯂꯝꯁꯤꯡ
ꯂꯩꯅꯅꯕꯒꯤ ꯃꯊꯧ ꯇꯥꯕ ꯁꯦꯜ ꯂꯧꯊꯣꯛꯅꯕ
ꯑꯍꯤꯡꯗꯒꯤ ꯉꯟꯅ ꯍꯧꯒꯠꯅꯗꯨꯅ
ꯕꯦꯡꯛꯁꯤꯡ ꯑꯃꯗꯤ ꯑꯦ ꯇꯤ ꯑꯦꯝꯁꯤꯡꯒꯤ
ꯃꯃꯥꯡꯗ ꯀ꯭ꯌꯨ ꯂꯦꯞꯅꯕ ꯍꯣꯠꯅꯕꯗ ꯑꯋꯥꯕ
ꯑꯃ ꯑꯣꯏꯅꯔꯛꯝꯕ ꯑꯗꯨ ꯍꯧꯖꯤꯛꯇꯤ ꯈꯔ
ꯁꯥꯐꯔ ꯍꯥꯏꯕ ꯌꯥꯔꯦ ꯑꯗꯨꯕꯨ ꯌꯨꯅꯥꯏꯇꯦꯗ ꯅꯥꯒꯥ
ꯀꯥꯎꯟꯁꯤꯜ (ꯌꯨ ꯑꯦꯟ ꯁꯤ) ꯅ ꯆꯠꯊꯔꯤꯕ
ꯃꯇꯝ ꯀꯛꯇꯕ ꯏꯀꯅꯃꯤꯛ ꯕ꯭ꯂꯣꯀꯦꯗꯒꯤ
ꯆꯩꯊꯦꯡꯗꯤ ꯉꯁꯤ ꯐꯥꯎꯕ ꯑꯗꯨꯃꯛ ꯐꯪꯅꯔꯤ꯫

ꯏꯀꯅꯃꯤꯛ ꯕ꯭ꯂꯣꯀꯦꯗꯅ ꯃꯔꯝ
ꯑꯣꯏꯗꯨꯅ ꯂꯝꯗꯝꯁꯤꯒꯤ ꯅꯣꯡꯃꯒꯤ
ꯇꯉꯥꯏꯐꯗꯕ ꯄꯣꯠꯂꯝꯁꯤꯡꯒꯤ ꯃꯃꯜꯅ
ꯑꯇꯤꯌꯥ ꯄꯛꯅ ꯋꯥꯡꯈꯠꯂꯛꯄꯒ
ꯂꯣꯏꯅꯅ ꯅꯨꯡꯇꯤꯒꯤ ꯆꯠꯊꯣꯛ ꯆꯠꯁꯤꯟꯗ
ꯁꯤꯖꯤꯟꯅꯔꯤꯕ ꯄꯦꯇ꯭ꯔꯣꯜꯁꯨ ꯐꯪꯅꯕ
ꯍꯣꯠꯅꯕꯗ ꯃꯤꯑꯣꯏ ꯀꯌꯥꯅ ꯅꯨꯃꯤꯗꯥꯡꯋ
ꯥꯏꯔꯝꯗꯒꯤ ꯍꯧꯅ ꯄꯦꯇ꯭ꯔꯣ ꯄꯝꯞ ꯃꯅꯥꯛꯇ
ꯒꯥꯔꯤꯁꯤꯡ ꯄꯔꯦꯡ ꯂꯦꯡꯗꯨꯅ ꯄꯦꯇ꯭ꯔꯣꯜ
ꯂꯧꯅꯕ ꯊꯝꯅꯔꯤ꯫ ꯄꯦꯇ꯭ꯔꯣꯜ ꯂꯧꯍꯧꯅꯕ
ꯍꯣꯠꯅꯕꯗ ꯂꯦꯡꯂꯤꯕ ꯀ꯭ꯌꯨꯅ ꯁꯥꯡꯃꯟꯕꯗꯒꯤ
ꯑꯣꯐꯤꯁꯀꯤ ꯊꯕꯛ ꯇꯧꯕ ꯃꯤꯑꯣꯏ ꯀꯌꯥ
ꯑꯣꯐꯤꯁ ꯃꯇꯝ ꯆꯥꯅ ꯀꯥꯕ ꯐꯪꯅꯗꯕꯒꯤ ꯑꯋꯥꯕ
ꯆꯥꯎꯅ ꯃꯥꯌꯣꯛꯅꯔꯤ꯫

ꯈ꯭ꯋꯥꯏꯔꯝꯕꯟ ꯀꯩꯊꯦꯜꯗ ꯌꯣꯜꯂꯤꯕ
ꯑꯦꯟꯖꯥꯡ-ꯅꯥꯄꯤ, ꯉꯥ-ꯆꯥꯛ ꯑꯃꯗꯤ
ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ ꯄꯣꯠꯂꯝ ꯄꯨꯝꯅꯃꯛ
ꯀꯅꯃꯤꯛ ꯕ꯭ꯂꯣꯀꯦꯗꯀꯤ ꯅꯥꯃꯥꯗ ꯃꯃꯜ
ꯍꯦꯟꯅ ꯍꯦꯟꯅ ꯌꯣꯟꯗꯨꯅ ꯃꯤꯆꯝ ꯃꯤꯌꯥꯝꯗ
ꯍꯦꯟꯅ ꯑꯋꯥꯕ ꯄꯣꯠꯂꯨꯝ ꯃꯥꯌꯣꯛꯅꯍꯜꯂꯤ꯫

ꯂꯝꯗꯝ ꯑꯁꯤꯗ ꯂꯂꯣꯟ ꯏꯇꯤꯛꯀꯤ ꯊꯕꯛ
ꯇꯧꯔꯤꯕꯁꯤꯡꯅ ꯃꯤꯆꯝ ꯃꯤꯌꯥꯝꯗꯒꯤ ꯀꯥ
ꯍꯦꯟꯕ ꯁꯦꯟꯗꯣꯡ ꯇꯥꯟꯒꯦ ꯈꯜꯂꯤꯕ ꯋꯥꯈꯜ
ꯑꯗꯨ ꯊꯥꯗꯣꯛꯄꯅ ꯑꯆꯨꯝꯕ ꯑꯣꯏꯒꯗ꯭ꯔ
ꯈꯟꯖꯩ꯫ ꯃꯔꯝ ꯑꯗꯨꯅ ꯑꯊꯨꯕ ꯃꯇꯝꯗ
ꯂꯝꯗꯝ ꯑꯁꯤꯒꯤ ꯃꯤꯆꯝ ꯃꯤꯌꯥꯝꯅ
ꯊꯦꯡꯅꯔꯤꯕ ꯑꯋꯥꯕꯁꯤꯡ ꯑꯁꯤ ꯀꯣꯛꯅꯕ
ꯃꯔꯤ ꯂꯩꯅꯕꯁꯤꯡꯅ ꯑꯊꯨꯕꯗ ꯃꯤꯠꯌ
ꯦꯡ ꯆꯪꯕꯤꯌꯨ ꯍꯥꯏꯅ ꯃꯥꯎꯆꯦꯒꯤ ꯈꯨꯠꯊꯥꯡꯗ
ꯅꯣꯜꯂꯨꯛꯆꯔꯤ꯫

ꯑꯗꯣꯝꯒꯤ-ꯐꯨꯔꯥꯏꯂꯥꯠꯄꯝ ꯔꯦꯕꯇꯤ
ꯁꯔꯃ
ꯑꯊꯨꯕꯗ ꯃꯤꯠꯌꯦꯡ ꯆꯪꯕꯤꯌꯨ
ꯅꯋꯥ ꯂꯧꯗꯦ ꯍꯥꯏꯕꯩ ꯇꯥꯏꯞꯇ...

‘ꯑꯅꯧꯕ ꯆꯍꯤꯅ ꯂꯥꯛꯄꯗ ꯂꯝꯗꯝ ꯑꯁꯤꯗ
ꯄꯨꯟꯅ ꯈꯨꯟꯗ ꯂꯩꯇꯥꯃꯤꯟꯅꯔꯤꯕ ꯐꯨꯔꯨꯞꯆꯥ ꯄꯨꯝꯅꯃꯛꯅ
ꯅꯨꯡꯁꯤ ꯆꯥꯟꯅꯅ ꯂꯩꯃꯤꯟꯅꯕ ꯑꯃꯗꯤ ꯂꯝꯗꯝ ꯑꯁꯤꯗ
ꯏꯪꯊꯕ-ꯇꯞꯊꯕ, ꯃꯤꯋꯥ-ꯃꯩꯁꯥ ꯂꯥꯡꯗꯕ ꯑꯃ ꯄꯨꯔꯛꯄ
ꯑꯣꯏꯔꯒꯁꯅꯨ’ ꯍꯥꯏꯅ ꯂꯝꯗꯝ ꯑꯁꯤꯒꯤ ꯑꯆꯧ-

ꯑꯁꯥꯡꯁꯤꯡꯅ ꯍꯦꯛ ꯍꯦꯛ ꯋꯤꯁ ꯄꯤꯗꯨꯅ ꯂꯥꯛꯏ꯫

ꯑꯃꯔꯣꯝꯗ ꯅꯥꯠꯀꯤ ꯑꯣꯏꯕ ꯆꯍꯤꯒꯤ ꯊꯧꯔꯝ ꯐꯨꯔꯨꯞ
ꯈꯨꯗꯤꯡꯒꯤ ꯂꯥꯛꯄꯗ ꯍꯥꯏꯕꯗꯤ ꯈꯨꯗꯝ ꯑꯣꯏꯟ ꯍꯥꯏꯔꯕꯗ

-ꯅꯤꯉꯣꯜ ꯆꯥꯛꯀꯧꯕ, ꯈ꯭ꯔꯤꯁꯃꯥꯁ, ꯏꯗꯨꯜ ꯐꯤꯇꯔ,
ꯆꯩꯔꯥꯜꯕꯅꯆꯤꯡꯕ ꯀꯌꯥꯗꯁꯨ ꯀꯨꯝꯃꯩ ꯑꯁꯤꯅ ꯄꯨꯟꯅ
ꯍꯤꯡꯃꯤꯟꯅꯕꯒꯤ ꯋꯥꯈꯜ ꯄꯣꯛꯍꯟꯕ ꯑꯣꯏꯔꯁꯅꯨ
ꯍꯥꯏꯕ ꯋꯤꯁ ꯑꯗꯨꯝ ꯄꯤꯔꯤ꯫ ꯇꯥꯕꯗ ꯅꯨꯡꯉꯥꯏꯕ, ꯆꯥꯟꯗ-

ꯆꯥꯟꯕꯤꯔꯗꯧꯕ, ꯅꯨꯡꯗ ꯅꯨꯡꯁꯤꯟꯗꯧꯔꯕ ꯍꯦꯛ ꯃꯥꯜꯂꯤ꯫

ꯑꯗꯨꯕꯨ ꯆꯍꯤ ꯀꯌꯥ ꯑꯁꯨꯝꯅ ꯂꯥꯛꯄꯁꯦ ꯑꯃꯨꯛꯇ ꯍꯦꯛ

TI ꯇꯞꯄ ꯂꯩꯕꯥꯛ ꯑꯃ ꯑꯣꯏꯕꯗꯤ ꯉꯝꯗꯦ꯫ ꯍꯦꯅꯟ
ꯍꯦꯟꯅꯗꯨꯃ ꯃꯑꯣꯡ ꯇꯥꯗꯕ ꯊꯧꯑꯣꯡ ꯑꯃꯗꯤ ꯋꯥꯀꯥꯏ
ꯑꯗꯨꯝ ꯉꯥꯡꯅ ꯐꯨꯔꯨꯞ ꯈꯔꯗꯤ ꯑꯗꯨꯃ ꯂꯥꯛꯏ꯫ ꯃꯗꯨꯒꯤ
ꯈꯨꯗꯝ ꯃꯥꯡꯗ ꯍꯧꯖꯤꯛ KE ꯁꯥꯗꯨꯅ ꯇꯥꯔꯤꯕꯁꯤꯅꯤ꯫

ꯃꯁꯤ ꯅꯥꯀꯜ ꯑꯃꯗ ꯍꯥꯏꯔꯕꯗꯤ ꯂꯨꯆꯤꯡꯕꯁꯤꯡ
ꯑꯁꯤꯒꯤ ꯋꯥꯁꯤ ‘ꯅꯋꯥ ꯂꯧꯗꯦ’ ꯍꯥꯏꯕꯒꯤ ꯃꯇꯥꯗꯨꯅꯤ꯫

ꯃꯃꯥꯡꯉꯩꯗ ꯂꯨꯆꯤꯡꯕ ꯍꯥꯏꯈ꯭ꯔꯕꯗꯤ ꯂꯣꯏꯔꯦ꯫ ꯃꯌ
ꯥꯝ ꯄꯨꯝꯛꯅꯃ ꯒ꯭ꯔꯤ-ꯒ꯭ꯔꯤ ꯏꯟꯅꯔꯝꯃꯤ꯫ ꯈꯤꯠꯇꯪ
ꯉꯟꯈꯠꯄ ꯃꯇꯝꯗ ꯍꯡꯒꯠꯅ ꯌꯦꯡꯂꯨꯔꯕꯁꯨ
ꯂꯨꯆꯤꯡꯕꯒꯤ ꯋꯥ ꯉꯥꯛ ꯅꯠꯇꯅ ꯂꯩꯀꯥꯏꯒꯤ ꯑꯍꯜ ꯑꯃꯅ
ꯃꯈꯨꯠ ꯊꯥꯡꯒꯠꯇꯨꯅ ‘ꯍꯩ’ ꯍꯥꯏꯕꯗ ꯃꯌꯥꯝ ꯄꯨꯝꯅꯃꯛ
ꯉꯥꯡꯅꯔꯝꯕ-ꯁꯛꯅꯔꯝꯕ ꯄꯨꯝꯅꯃꯛ ꯆꯞ-ꯆꯎ
ꯂꯦꯞꯅꯔꯝꯃꯤ꯫ ꯑꯍꯜꯗꯨꯅ ꯍꯥꯏꯕ ꯋꯥꯗꯨ ꯃꯨꯟꯅ ꯇꯥꯔꯝꯃꯤ꯫

ꯍꯧꯖꯤꯛꯅ ꯀꯩꯗꯧꯔꯦ ‘ꯑꯍꯜ ꯅꯋꯥ ꯂꯧꯗꯦ, ꯃꯁꯤ ꯑꯍꯜꯅ
ꯈꯪꯕ ꯋꯥ ꯅꯠꯇꯦ’ ꯍꯥꯏꯗꯅ ꯀꯅꯁꯨ ꯑꯍꯜꯁꯤꯡꯒꯤ
ꯋꯥ ꯇꯥꯅꯈꯤꯗ꯭ꯔꯦ꯫ ꯃꯇꯝꯁꯤꯗ ꯑꯍꯂꯁꯤꯡꯒꯤ
ꯆꯟꯅꯐꯝ ꯂꯩꯇ꯭ꯔꯦ꯫ ꯃꯣꯏꯒꯤ ꯆꯟꯅꯐꯝ ꯍꯥꯏꯕꯨ ꯍꯧꯖꯤꯛ
ꯄꯥꯡꯊꯣꯛꯂꯤꯕ ꯊꯕꯛ ꯊꯧꯔꯃꯗ ꯃꯃꯥꯡ ꯐꯝꯕꯁꯤ
ꯃꯉꯥꯏ꯫ ꯑꯗꯨꯁꯨ ꯆꯤꯔꯥꯛ ꯄꯤꯕꯒ ꯑꯝꯍꯥꯅꯤ꯫ ꯍꯧꯒꯠꯄ
ꯌꯥꯄꯣꯠꯇꯦ꯫ ꯑꯍꯜ ꯃꯈ꯭ꯋꯥꯡꯒ ꯅꯥꯕ, ꯃꯄꯥꯟꯒ ꯇꯣꯏꯅ
ꯊꯣꯛꯀꯟꯕ ꯀꯥꯡꯕꯨꯗꯤ ꯌꯥꯝꯅ ꯋꯥꯈ꯭ꯔꯖꯥꯠꯅꯤ꯫ ꯆꯥꯛꯆꯥ-

ꯍꯩꯖꯥꯅꯕꯗꯁꯨ ꯑꯗꯨ ꯃꯈꯥꯏ ꯑꯍꯜ ꯑꯃꯅ ꯃꯀꯣꯛꯇ
ꯐꯝꯃꯒ ꯑꯍꯜꯗꯨꯅ ꯆꯥꯗ꯭ꯔꯤꯉꯩ ꯆꯥꯅꯔꯝꯗꯦ,ꯑꯍꯜꯗꯨꯅ
ꯍꯧꯒꯠꯇ꯭ꯔꯤꯃꯈꯩ ꯍꯧꯒꯠꯅꯔꯝꯗꯦ꯫ ꯍꯧꯖꯤꯛꯇꯤ ꯐꯝꯕꯒ
ꯆꯥꯕ, ꯇꯣꯛꯄꯒ ꯍꯧꯒꯠꯄꯒ ꯑꯥꯀ-ꯄꯥꯛ ꯑꯃꯠꯇ
ꯅꯥꯏꯅꯗ꯭ꯔꯦ꯫ ꯃꯅꯥ ꯃꯅꯥ ꯇꯧꯅꯤꯡꯕ ꯇꯧꯗꯨꯅ ꯂꯩꯅꯔꯦ꯫

ꯃꯇꯝꯁꯦ ꯃꯇꯥ ꯑꯃ ꯇꯧꯈ꯭ꯔꯦ꯫ ꯈꯨꯟꯅꯥꯏ ꯑꯁꯤꯒꯤ
ꯃꯃꯃꯥꯡꯉꯩꯗꯒꯤ ꯍꯧꯅ ꯊꯝꯕꯤꯔꯝꯕ ꯐꯖꯔꯕ ꯃꯆꯠꯁꯤꯡ
ꯃꯆꯦꯠ ꯃꯆꯦꯠ ꯇꯥꯅ ꯀꯥꯏꯔꯕ ꯂꯤꯛꯂꯤ ꯃꯀꯨꯞꯀ ꯆꯞ
ꯃꯥꯟꯅꯗ꯭ꯔꯦ꯫

ꯐꯨꯔꯨꯞ ꯀꯌꯥꯅꯥ ꯈꯨꯟꯗ ꯂꯩꯇꯥꯔꯤꯕ ꯃꯅꯤꯄꯨꯔ ꯑꯁꯦ
ꯃꯅꯥ ꯃꯅꯥ ꯊꯣꯛꯄ ꯃꯅꯥ ꯃꯅꯥ ꯄꯥꯝꯕ ꯑꯗꯨꯇꯅꯤ ꯇꯧꯅꯔꯤꯕ꯫

ꯃꯁꯤꯗꯒꯤ ꯍꯦꯟꯗꯣꯛꯇꯨꯅ ꯑꯄꯨꯟꯕ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯃꯁꯛ
ꯑꯁꯤ ꯃꯆꯦꯠ ꯃꯆꯦꯤ ꯐꯛꯄꯒꯤ ꯇꯥꯏꯞꯇ ꯑꯩꯒꯤ ꯂꯝꯅꯤ,
ꯃꯥꯒꯤ ꯂꯝꯅꯤ ꯍꯥꯏꯅ ꯃꯄꯨ ꯇꯥꯛꯇꯅ ꯌꯦꯟꯊꯣꯛꯅꯕꯒꯤ
ꯐꯤꯒꯝꯗ ꯂꯩꯅꯔꯦ꯫ ꯃꯅꯤꯄꯨꯔꯒꯤ ꯑꯄꯨꯟꯕꯒꯤ ꯂꯝ ꯑꯁꯤꯗꯤ
ꯒꯚꯔꯟꯃꯦꯟꯠꯀꯤꯅꯤ꯫ ꯒꯚꯔꯟꯃꯦꯟꯠꯅ ꯃꯅꯤꯄꯨꯔꯒꯤ
ꯂꯝꯅꯤ ꯍꯥꯏꯕꯁꯤ ꯀꯅ ꯑꯃꯠꯇꯅ ꯈꯪꯅꯗꯕꯒꯨꯃ ꯇꯧꯅꯔꯦ꯫

ꯅꯥꯒꯥꯒꯤ ꯂꯝ, ꯀꯨꯀꯤꯒꯤ ꯂꯝ, ꯃꯤꯇꯩꯒꯤ ꯂꯃ, ꯃꯤꯇꯩ
ꯃꯨꯁꯂꯤꯝꯒꯤ ꯂꯝ ꯍꯥꯏꯅ ꯈꯥꯏꯗꯣꯛꯄꯤꯔꯤ꯫ ꯑꯣꯏꯁꯨ
ꯑꯣꯏꯔꯣꯏꯗꯕꯗ, ꯃꯪꯂꯥꯟ ꯀꯌꯥ ꯑꯃ ꯁꯥꯒꯠꯇꯨꯅ ꯃꯤꯌꯥꯝꯕꯨ
ꯇꯣꯈꯥꯏ ꯇꯥꯟꯅꯕ, ꯅꯨꯡꯁꯤꯕ ꯁꯤꯠꯅꯅꯕ ꯊꯧꯁꯤꯜꯁꯤꯡ ꯃꯈꯣꯏ
ꯃꯈꯣꯠꯒꯤ ꯂꯨꯆꯤꯡꯕꯁꯤꯡꯅ ꯇꯧꯔꯤ꯫ ꯃꯌꯥꯝ ꯄꯨꯝꯅꯃꯛ \

ꯥꯅꯤꯡꯕ ꯌꯥꯅꯤꯡꯗꯕꯒꯤ ꯋꯥ ꯂꯩꯇꯦ꯫ꯀꯤꯕꯣꯏ ꯀꯔꯤꯕꯣꯏ ꯋꯥ
ꯑꯃꯠꯇ ꯉꯥꯡꯅꯗꯦ꯫ ꯃꯤꯌꯥꯝꯒꯤꯅꯅꯤ ꯍꯥꯏꯕ ꯋꯥ, ꯃꯤꯌꯥꯝꯒꯤ
ꯃꯍꯨꯠ ꯁꯤꯟꯗꯨꯅ ꯂꯨꯆꯤꯡꯕꯅꯤ ꯍꯥꯏꯖꯔꯤꯕꯁꯤꯡꯅ ꯋꯥꯀꯥꯏ
ꯁꯨꯗꯨꯅ ꯂꯩꯔꯤ꯫

ꯍꯧꯖꯤꯛꯁꯤ ꯃꯅꯄꯨꯔꯗ ꯌꯥꯝꯅ ꯆꯔꯥꯡꯅꯕ ꯐꯤꯚꯝ
ꯑꯃꯗ ꯂꯩꯔꯤ꯫ ꯃꯣꯏ ꯃꯣꯏꯅ ꯉꯥꯡꯂꯤꯕ ꯋꯥꯁꯤ ꯇꯥꯔꯨꯔꯒꯗꯤ
ꯍꯦꯛ ꯎꯅꯕꯒ ꯍꯥꯠꯅꯕꯒꯤ ꯊꯥꯛꯇꯅꯤ ꯇꯧꯔꯤꯁꯦ꯫ ꯑꯗꯨꯕꯨ
ꯀꯥꯡꯂꯨꯞ ꯅꯥꯏꯕ ꯋꯥꯁꯤ ꯊꯑꯣꯏꯅ ꯀꯅꯥꯁꯨ ꯋꯥ ꯑꯣꯏꯅ
ꯇꯥꯕꯤꯗꯦ꯫ ꯇꯥꯕꯨ ꯇꯥꯔꯕꯗꯤ ꯅꯍꯥꯛꯅ ꯃꯅꯤꯄꯨꯔꯁꯤ ꯃꯣꯡꯐꯝ
ꯉꯥꯛꯇ ꯉꯥꯏꯅꯔꯝꯃꯗꯕꯅꯤ꯫ ꯁꯤꯃꯠꯇꯗ ꯍꯜꯂꯨ ꯁꯨꯛꯌꯥ
ꯌꯥꯗꯕ ꯐꯨꯔꯨꯞ ꯂꯩꯔꯤ꯫ ꯃꯁꯤꯅ ꯑꯃꯨꯛ ꯁꯤꯡꯆꯦꯞ ꯑꯣꯏꯅ
ꯃꯤꯌꯥꯝꯒꯤ ꯊꯝꯃꯣꯏꯗ ꯀꯟꯅ ꯌꯨꯔꯤꯕꯅꯤ꯫ ꯑꯁꯨꯝ
ꯑꯁꯨꯝ ꯈꯣꯡꯐꯝ ꯍꯟꯗꯣꯛꯅꯗ꯭ꯔꯕꯗꯤ ꯑꯀꯤꯕ ꯂꯥꯟꯐꯝ
ꯑꯣꯏꯔꯛꯄ ꯌꯥꯕꯒꯤ ꯐꯤꯚꯝꯁꯨ ꯂꯩꯇꯕ ꯅꯠꯇꯦ꯫ ꯍꯧꯖꯤꯛ
ꯅꯦꯁꯅꯦꯜ ꯍꯥꯏꯌꯦ ꯑꯅꯤꯗ ꯏꯀꯅꯃꯤꯛ ꯄ꯭ꯂꯣꯀꯦꯗ ꯀꯟꯅ
ꯆꯠꯊꯔꯤ꯫ ꯕ꯭ꯂꯣꯀꯦꯗꯁꯤ ꯌꯥꯝꯅ ꯁꯥꯊꯤꯕ ꯊꯥꯛ ꯌꯧꯔꯦ꯫

ꯀꯌꯥꯃꯨꯛ ꯌꯥꯝꯅ ꯃꯤꯌꯥꯝꯅ ꯋꯥꯔꯧꯅꯔꯕꯒꯦ ꯍꯥꯏꯕꯗꯨ ꯃꯃꯥꯡ
ꯃꯇꯝ ꯈꯔꯗ ꯀꯥꯎꯟꯇꯔ ꯕ꯭ꯂꯣꯀꯦꯗ ꯇꯧꯈꯤꯕ ꯑꯗꯨꯅ
ꯈꯨꯗꯝ ꯆꯥꯡꯗꯝꯅꯤ꯫ ꯑꯗꯨꯕꯨ ꯃꯤꯌꯥꯝꯒꯤ ꯏꯪꯊꯕ ꯇꯞꯊꯕ
ꯋꯥꯈꯜ ꯑꯃꯅ ꯃꯈꯥ ꯆꯠꯊꯈꯤꯗ꯭ꯔꯦ꯫ ꯕ꯭ꯂꯣꯀꯦꯗꯇꯤ
ꯍꯧꯖꯤꯛꯅꯕꯨ ꯍꯦꯟꯅ ꯀꯟꯁꯤꯟꯅ ꯆꯠꯊꯔꯤ꯫ ꯃꯁꯤ
ꯃꯤꯑꯣꯏꯕ ꯍꯥꯏꯕ ꯑꯁꯤꯒꯤ ꯃꯊꯛꯇ ꯆꯠꯊꯕ ꯁꯥꯊꯤꯕ
ꯀ꯭ꯔꯥꯏꯝ ꯑꯃꯅꯤ ꯍꯥꯏꯕꯁꯤꯗꯤ ꯃꯤꯄꯨꯝ ꯈꯨꯗꯤꯡꯅ
ꯍꯥꯏꯔꯦ꯫ ꯃꯅꯤꯄꯨꯔꯗ ꯂꯩꯔꯤꯕ ꯈꯨꯔꯨꯞ ꯈꯨꯗꯤꯡꯒꯤ ꯑꯣꯏꯕ
ꯃꯤꯌꯥꯝꯅ ꯕ꯭ꯔꯣꯀꯦꯗꯁꯤ ꯇꯣꯛꯅꯕ ꯀꯟꯅ ꯍꯥꯏꯖꯔꯦ꯫

ꯑꯗꯨꯕꯨ ꯊꯣꯏꯗꯣꯛꯅ ꯇꯥꯕꯒꯤ ꯃꯍꯨꯠꯇ ꯃꯊꯨꯟ ꯇꯥꯈꯠꯂꯒ
ꯃꯈꯣꯏ ꯅꯥꯝꯃ ꯊꯥꯡꯒꯠꯂꯒ ꯇꯥꯛ ꯂꯥꯎꯅ ꯊꯥꯕꯒꯤ ꯇꯥꯏꯞ
ꯅꯋꯥ ꯂꯧꯗꯦ ꯍꯥꯏꯅ ꯂꯩꯊꯣꯛꯈ꯭ꯔꯦ꯫ ꯃꯁꯤ ꯇꯧꯗꯕ \

ꯥꯗꯕ ꯑꯃꯕꯨꯗꯤ ꯑꯣꯏꯔꯝꯕ ꯌꯥꯏ ꯍꯥꯏꯕꯨ ꯃꯈꯣꯏꯒꯤ
ꯁꯤꯡꯅꯔꯤꯕꯁꯤ ꯀꯅꯥꯗꯣ ꯍꯥꯏꯕ ꯋꯥꯍꯪ ꯑꯃꯗꯤ ꯃꯤꯄꯨꯝ
ꯑꯌꯥꯝꯕꯒꯤ ꯊꯝꯃꯣꯏꯗ ꯍꯪꯕ ꯍꯧꯅꯔꯛꯂꯦ꯫

ꯅꯦꯁꯅꯦꯜ ꯍꯥꯏꯋꯦꯗ ꯁꯤꯡꯅꯔꯛꯏꯕꯁꯤ ꯁ꯭ꯇꯦꯠ,
ꯁꯦꯟꯇꯔ ꯑꯃꯗꯤ ꯑꯥꯏꯟꯗꯅꯤ ꯍꯥꯏꯕꯁꯤ ꯃꯗꯤ
ꯁꯦꯡꯂꯦ꯫ ꯃꯈꯣꯏꯅꯁꯨ ꯑꯗꯨꯝ ꯍꯥꯏ ꯕ꯭ꯂꯣꯀꯦꯗ ꯑꯁꯤ
ꯃꯅꯤꯄꯨꯔꯗ ꯇꯥꯔꯤꯕ ꯃꯤꯌꯥꯝꯒꯤ ꯃꯊꯛꯇ ꯅꯠꯇꯦ’

ꯍꯥꯏꯅ꯫ ꯆꯨꯝꯃꯝꯒꯅꯤ꯫ ꯑꯗꯨꯕꯨ ꯋꯥꯔꯤꯕꯗꯤ ꯃꯤꯌꯥꯝꯅꯤ꯫

ꯃꯤꯌꯥꯝꯁꯨ ꯍꯏꯔꯦꯅ-ꯃꯈꯣꯏꯒꯤ ꯗꯤꯃꯥꯟ ꯑꯁꯤꯒꯤ
ꯃꯇꯥꯡꯗ ꯃꯔꯤ ꯂꯩꯅꯕꯁꯤꯡꯅ ꯋꯥꯔꯤ ꯁꯥꯟꯅꯕꯤꯔꯒ
ꯂꯣꯏꯁꯤꯟꯕꯤꯌꯨ ꯍꯥꯏꯅ꯫ ꯁꯤꯗꯒꯤ ꯍꯦꯟꯕꯗꯤ ꯀꯔꯤ
ꯇꯧꯅꯤ꯫ ꯃꯈꯣꯏꯒꯤ ꯗꯤꯃꯥꯟꯗꯨ ꯑꯩꯈꯣꯏ ꯃꯌꯥꯝ ꯍꯟꯅ
ꯁꯧꯒꯠꯇꯨꯅ ꯃꯅꯤꯄꯨꯔꯁꯤ ꯅꯤꯡꯊꯝꯊꯥꯁꯤꯗ ꯃꯩ ꯇꯤꯛꯊꯣꯛ
ꯑꯁꯤ ꯍꯥꯏꯕꯔꯣ? ꯑꯣꯏꯔꯣꯏꯗꯕ ꯋꯥꯅꯤ꯫ ꯃꯅꯤꯄꯨꯔꯒꯤ
ꯃꯤꯌꯥꯝꯅ ꯆꯥꯅꯤꯡꯉꯥꯏ ꯊꯛꯅꯤꯡꯉꯥꯏ ꯂꯩꯔꯛꯇꯕ,
ꯋꯥꯕꯒꯤ ꯄꯟꯗꯣꯝ ꯂꯣꯝꯅꯔꯛꯄ ꯑꯁꯤ ꯌꯧꯔꯐꯥꯎꯕꯗ
ꯏꯆꯥ ꯏꯅꯥꯎꯅꯤꯂ ꯏꯆꯤꯟ ꯏꯅꯥꯎꯅꯤ, ꯏꯃꯥ ꯑꯃꯠꯇꯒꯤ
ꯃꯆꯥꯅꯤ ꯍꯥꯏꯅ ꯈꯥꯡꯗꯨꯅ ꯂꯩꯔꯤꯕꯅꯤ꯫ ꯑꯗꯨꯕꯨ ꯂꯩꯕꯥꯛꯃꯆꯥꯁꯥ,
ꯃꯤꯑꯣꯏꯕꯒꯤ ꯈꯥꯡꯕ ꯉꯝꯕꯒꯤ ꯄꯟꯈꯩ ꯑꯃꯗꯤ ꯂꯩ꯫

ꯄꯟꯈꯩ ꯑꯗꯨ ꯍꯦꯛ ꯂꯥꯟꯕꯗ ꯀꯔꯤ ꯑꯣꯏꯔꯛꯀꯅꯤ
ꯍꯥꯏꯕꯁꯤ ꯀꯅꯥꯅ ꯍꯥꯏꯕ ꯉꯝꯃꯤ꯫ ꯃꯄꯥꯡꯒꯜ ꯁꯣꯟꯕ
ꯀꯔꯤꯁꯨ ꯇꯧꯖꯕ ꯉꯝꯖꯗꯕꯁꯤꯡ ꯐꯥꯎꯕ KgjArkt

ꯃꯇꯝ ꯌꯧꯔꯛꯂꯕꯗꯤ ꯌꯥꯄꯪꯇꯅ ꯑꯣꯏꯔꯁꯨ ꯆꯤꯛꯏ ꯍꯥꯏꯕ
ꯂꯩꯕꯅꯤ꯫ ꯑꯗꯨꯁꯨ ꯅꯤꯡꯁꯤꯡꯕ ꯆꯝꯗ꯭ꯔꯣ?

ꯏꯂꯦꯛꯁꯟꯒꯤ ꯃꯣꯗꯦꯜ ꯀꯣꯗ ꯑꯣꯐ ꯀꯟꯗꯛ
ꯆꯠꯅꯈꯤꯕꯒ ꯂꯣꯏꯅꯅ ꯁ꯭ꯇꯦꯠ ꯒꯚꯔꯟꯃꯦꯟꯠꯗꯤ
ꯊꯣꯏꯗꯣꯛꯄ ꯋꯥꯔꯦꯞ ꯂꯧꯕ ꯌꯥꯕ ꯂꯩꯇ꯭ꯔꯕꯔ ꯈꯜꯂꯤ꯫ ꯑꯗꯨ
ꯑꯣꯏꯔꯕꯗꯤ ꯁꯦꯟꯇ꯭ꯔꯦꯜ ꯒꯚꯔꯟꯃꯦꯟꯠꯅ ꯀꯔꯤꯅꯣ
ꯇꯧꯕ ꯌꯥꯕ ꯇꯧꯕ ꯃꯇꯝ ꯊꯤꯅꯤꯅ꯫ ꯃꯗꯨꯒꯤꯁꯨ ꯃꯊꯛꯇ
ꯂꯩꯄꯥꯛ ꯑꯁꯤꯒꯤ ꯑꯥꯏꯟꯒꯤ ꯋꯥꯔꯦꯞ ꯂꯧꯔꯤꯕ SD_

ꯥꯏꯗꯒꯤ ꯋꯥꯡꯕ ꯁꯨꯄ꯭ꯔꯤꯝ ꯀꯣꯔꯠꯅ ꯅꯦꯁꯅꯦꯜ ꯍꯥꯏꯋꯦꯗ
ꯊꯤꯡꯕ ꯌꯥꯗꯦ ꯍꯥꯏꯕ ꯋꯥꯌꯦꯜ ꯀꯌꯥ ꯂꯩꯈ꯭ꯔꯦ ꯃꯁꯤ ꯊꯨꯒꯥꯏꯕ
ꯇꯥꯔꯕꯗꯤ ꯆꯩꯔꯥꯛ WIWA ꯊꯣꯛꯏ ꯍꯥꯏꯕꯗꯨ ꯈꯪꯍꯟꯕ \

ꯥꯔꯦꯅ꯫ ꯇꯧꯔꯤꯕꯁꯤꯗꯤ ꯑꯥꯏꯟ-ꯐꯥꯏꯟ ꯅꯋꯥ ꯂꯧꯗꯦ ꯍꯥꯏꯗꯨ
ꯇꯥꯔꯦ꯫ ꯃꯅꯤꯄꯨꯔ ꯋꯥꯔꯦ ꯍꯥꯏꯕꯁꯤ ꯈꯪꯗꯕꯅꯔ ꯀꯔꯤꯅꯣ
ꯕ꯭ꯂꯣꯀꯦꯗ ꯑꯁꯤ ꯃꯈꯨꯠꯇꯒꯤ ꯊꯥꯗꯣꯛꯎ ꯌꯥꯗ꯭ꯔꯦ꯫ ꯆꯥꯅꯕ
ꯂꯩꯔꯛꯇ꯭ꯔ, ꯊꯥꯎ ꯐꯪꯂꯛꯇ꯭ꯔꯕ, ꯍꯤꯔꯝ ꯈꯨꯗꯤꯡꯃꯛ
ꯑꯃꯠꯇꯗ ꯂꯩꯔꯛꯇ꯭ꯔꯕ ꯃꯇꯝ ꯑꯁꯤꯗ ꯁꯦꯟꯇꯔꯗꯒꯤ
ꯊꯥꯔꯛꯄ ꯁꯤꯐꯥꯏꯁꯤꯡꯅ ꯉꯥꯛꯂꯒ ꯖꯤꯔꯤꯔꯣꯝꯗꯒꯤ
ꯇ꯭ꯔꯛ ꯈꯔ ꯈꯔ ꯊꯧꯖꯤꯜꯍꯜꯂꯛꯏꯕꯁꯤꯒꯤ ꯀꯥꯡꯂꯣꯟ
ꯑꯁꯤꯁꯨ ꯌꯦꯡꯁꯤꯟꯕ ꯃꯊꯧ ꯇꯥꯏ꯫ ꯑꯃꯨꯛꯇ ꯇ꯭ꯔꯥꯛ
500 ꯗꯒꯤ ꯍꯦꯟ ꯄꯨꯤꯁꯤꯜꯂꯛꯇꯦ ꯍꯥꯏꯕ ꯈꯪꯉꯦ꯫ ꯇ꯭ꯔꯛ
ꯂꯤꯁꯤꯡꯒꯤ ꯃꯊꯛꯇ ꯂꯩꯔꯕꯁꯨ ꯁꯦꯀꯨꯔꯤꯇꯤꯒꯤ ꯑꯣꯏꯕ
ꯃꯤꯠꯌꯦꯡꯗ 500 ꯔꯣꯝꯇꯃꯛ ꯄꯨꯁꯤꯜꯂꯛꯄꯁꯤꯅ
ꯀꯔꯤ ꯑꯣꯏꯒꯅꯤ꯫ ꯂꯣꯛꯇꯥꯛꯇ ꯊꯨꯝ ꯕꯣꯔꯥ ꯑꯃ
ꯊꯥꯗꯕꯒꯨꯃꯕꯅꯤ꯫ ꯁꯤꯐꯥꯏ ꯃꯌꯥꯝ ꯆꯥꯗ ꯌꯥꯔꯣꯏ꯫ ꯃꯈꯣꯏꯅ
ꯊꯧꯔꯤꯕ ꯒꯥꯔꯤ ꯊꯥꯎꯅꯤ꯫ ꯆꯤꯡꯁꯤꯜꯂꯛꯄ ꯊꯥꯎ ꯃꯈꯩ
ꯃꯈꯣꯏꯒꯤ ꯒꯥꯔꯤꯗ ꯍꯥꯞꯅꯕ, ꯑꯉꯝ ꯑꯊꯧꯁꯤꯡꯒꯤ
ꯒꯥꯔꯤꯗ ꯍꯥꯞꯅꯕ ꯂꯧꯊꯣꯛꯈꯤꯕꯗ ꯃꯤꯌꯥꯝꯒꯤ ꯄꯝꯞꯇꯗꯤ
ꯑꯃꯨꯛꯇ ꯒꯥꯔꯤ ꯂꯤꯁꯤꯡ ꯑꯅꯤ ꯌꯧꯅ ꯄꯤꯗ꯭ꯔꯦ ꯑꯗꯨꯁꯨ
ꯑꯀꯛꯅꯕ ꯁꯦꯟꯐꯝꯒꯤ ꯑꯗꯨꯅ ꯀꯩꯗꯧꯗꯧꯔꯤꯕ?

ꯄꯨꯁꯤꯜꯂꯛꯄ ꯄꯨꯝꯅꯃꯛ ꯁꯤꯐꯥꯏꯅ ꯆꯥꯟꯕ, ꯁꯤꯐꯥꯏꯅ
ꯒꯥꯔꯤ ꯊꯧꯅꯕ ꯑꯣꯏꯕꯗꯤ ꯁ꯭ꯇꯦꯠ ꯒꯚꯔꯟꯃꯦꯟꯠꯀꯤ
ꯀꯃꯟꯗꯣꯛꯅ ꯑꯃꯨꯛꯇꯃꯨꯛ ꯆꯠꯄꯗ ꯒꯥꯔꯤ ꯂꯤꯁꯤꯡ
ꯑꯣꯏꯅ ꯊꯧꯖꯤꯜꯂꯛꯄꯗꯨꯅ ꯐꯠꯇ꯭ꯔꯣ? ꯒꯥꯔꯤ 500/500
ꯗꯪ ꯊꯤꯠꯂꯤ-ꯊꯤꯠꯂꯤ ꯍꯣꯟꯕꯁꯤꯒꯤ ꯑꯣꯏꯔꯗꯤ ꯁꯤꯐꯥꯏ
ꯍꯜꯍꯟꯈꯤꯕꯅꯕꯨ ꯐꯔꯦ꯫ ꯇꯧꯁꯤ ꯍꯥꯏꯕ ꯅꯠꯇꯦꯀꯣ
ꯄꯦꯟꯗꯕꯗꯒꯤ ꯍꯥꯏꯕ ꯍꯥꯏꯗꯨꯅꯤ꯫ ꯀꯟꯅꯗꯦ ꯍꯥꯏꯋꯥꯅꯤꯗ꯫

ꯁꯤꯐꯥꯏ ꯀꯣꯟꯅꯗ꯭ꯔꯒꯅ ꯀꯥꯏ ꯀꯥꯏꯗꯩꯅꯣ ꯂꯧꯊꯣꯛꯑꯣ꯫

ꯃꯣꯔꯦ ꯂꯝꯕꯤꯗ ꯀꯥꯔꯕꯥꯔ ꯃꯆꯥ ꯃꯆꯥ ꯇꯧꯖꯕ ꯄꯨꯝꯅꯃꯛꯀꯤ
ꯄꯣꯠꯌꯦꯡ ꯑꯃꯃꯝꯇ ꯍꯥꯡꯗꯨꯅ ꯌꯦꯡꯕꯒꯤ ꯕꯠꯇꯥꯂꯤꯌꯥꯟ
ꯑꯃ ꯈꯨꯗꯦꯡꯊꯥꯕꯤꯗ ꯂꯩꯔꯤꯗꯨ ꯀꯩ ꯀꯥꯟꯅꯩ꯫ ꯑꯗꯨꯒꯨꯝꯕꯗꯨꯗꯤ
ꯀꯁꯇꯝꯅ ꯑꯃꯗꯤ ꯄꯨꯂꯤꯁꯅ ꯇꯧꯗꯧꯅꯤꯅ꯫ ꯃꯗꯨꯗ ꯂꯩꯔꯤ
ꯃꯌꯥꯝꯗꯨ ꯖꯤꯔꯤ ꯂꯝꯕꯤꯗ ꯊꯥꯖꯤꯜꯂꯒ ꯇ꯭ꯔꯛ ꯍꯦꯟꯅꯍꯜꯂꯨ꯫

ꯖꯤꯔꯤꯗ ꯂꯤꯁꯤꯡ ꯂꯤꯁꯤꯡ ꯄꯨꯟꯗꯨꯅ ꯂꯩꯔꯤꯕ ꯚꯥꯔꯤꯁꯤꯡ
ꯊꯧꯖꯤꯜꯂꯛꯍꯜꯂꯨ꯫ ꯇꯧꯔꯤꯕ ꯃꯑꯣꯡꯁꯤꯗꯤ ꯁꯦꯟꯇꯔꯅ
ꯍꯥꯏꯋꯦꯗ ꯉꯥꯛꯂꯒ ꯇ꯭ꯔꯥꯛ ꯊꯧꯍꯜꯂꯤꯁꯨ ꯍꯥꯏꯕ ꯑꯣꯏꯁꯨ
ꯑꯣꯏꯗꯕꯁꯤꯗꯤ ꯀꯔꯤꯅꯣꯃ ꯁꯨꯝ ꯁꯥꯟꯅꯕ ꯃꯥꯟꯅꯩ꯫ ꯁꯤꯕꯨ

‘ꯅꯋꯥ ꯂꯧꯗꯦ’ ꯍꯥꯏꯕ ꯃꯤꯌꯝ ꯑꯃ ꯆꯣꯡꯊꯣꯔꯛꯂꯗꯤ ꯚꯣꯠꯀ
ꯄꯨꯃꯆꯥꯏ ꯆꯥꯏꯅꯅꯤ꯫

ꯍꯧꯖꯤꯛ ꯂꯩꯅꯔꯤꯕ ꯐꯤꯚꯝꯁꯤꯡꯁꯤ ꯌꯦꯡꯂꯨꯔꯒ
ꯚꯣꯠ ꯃꯌꯥꯁꯤꯗ ꯀꯔꯤꯅꯣ ꯁꯨꯝ ꯇꯧꯔꯛꯀꯗꯧ ꯃꯥꯜꯂꯤꯀꯣ꯫

ꯈꯨꯎ ꯁꯦꯟꯕ ꯑꯃ ꯆꯪꯉꯤ ꯍꯥꯏꯅ ꯆꯤꯕꯣꯟ ꯆꯤꯕꯣꯟ
ꯉꯥꯡꯅꯔꯛꯂꯦ ꯃꯆꯤ ꯃꯆꯤꯗ꯫ ꯑꯩꯒꯤ ꯋꯥꯗꯤ ꯕ꯭ꯂꯣꯀꯦꯗ
ꯇꯧꯕꯤꯔꯤꯕꯅꯁꯨ ꯃꯔꯤ ꯂꯩꯅꯕꯁꯤꯡꯁꯨ ꯃꯤꯌꯥꯝꯒꯤ ꯈꯜꯂꯒ
ꯀꯔꯤꯅꯣ ꯀꯔꯤꯅꯣ ꯇꯧꯗꯨꯅ ꯆꯠꯊꯔꯤꯕ ꯕ꯭ꯂꯣꯀꯦꯗꯁꯦ
ꯈꯨꯗꯛꯇ ꯂꯣꯏꯁꯤꯟꯅꯕ ꯍꯣꯠꯅꯕꯤꯌꯨ꯫ ꯀꯥꯎꯟꯠꯇꯔ
ꯕ꯭ꯂꯣꯀꯦꯗꯇ ꯀꯥꯔꯐꯤꯌꯨ ꯊꯝꯕꯒꯨꯝ ꯏꯀꯅꯃꯤꯛ
ꯕ꯭ꯂꯣꯀꯦꯗ ꯇꯧꯔꯤꯕ ꯑꯀꯟꯕ ꯃꯐꯝꯁꯤꯡꯗꯁꯨ ꯀꯥꯔꯐꯤꯌꯨ
ꯊꯝꯖꯤꯟꯒꯦꯔꯥ ꯀꯩꯅꯣ ꯃꯤꯌꯥꯝ ꯂꯥꯛꯁꯤꯟꯅꯕ ꯍꯣꯠꯅꯕꯤꯔꯣ꯫

ꯅꯠꯇ꯭ꯔꯗꯤ ꯃꯃꯩꯊꯪꯗ ꯑꯃꯁꯨ ꯑꯃꯁꯨ ꯅꯋꯥ ꯂꯧꯗꯦ ꯍꯥꯏꯕꯩ
ꯇꯥꯏꯞꯇ ꯃꯊꯧ ꯄꯥꯡꯊꯣꯛꯅꯔꯛꯂꯕꯗꯤ ꯀꯥꯡ-ꯈꯣꯡ
ꯆꯥꯏꯅꯔꯅꯤ꯫

ꯆꯥꯏꯊꯣꯔꯛꯄ ꯋꯥꯈꯜ
ꯅꯔꯦꯟꯗ꯭ꯔ ꯅꯤꯉꯣꯝꯕ
10 = ꯏꯃꯗꯃ
(Amada Phun)
ꯁꯤꯀꯨꯌꯔꯗ ꯑꯣꯐꯤꯁ ꯕꯤꯜꯗꯤꯡ
ꯃꯁꯥꯃꯛꯀꯤ ꯑꯣꯐꯤꯁ ꯐꯥꯎꯕ ꯑꯁꯨꯝꯅ ꯁꯥꯔꯗꯤ ꯀꯝꯗꯧꯕ
ꯂꯩꯕꯥꯛ ꯑꯁꯤꯒꯤ ꯆꯥꯎꯈꯠꯂꯕ ꯁꯤꯇꯤꯁꯤꯡꯗ ꯂꯩꯉꯥꯛꯀꯤ ꯅꯠꯇ꯭ꯔꯒ ꯂꯟꯅꯥꯏꯒꯤ ꯑꯣꯐꯤꯁꯁꯤꯡ ꯃꯇꯝꯒ ꯆꯨꯅꯕ ꯃꯑꯣꯡꯗ ꯁꯦꯝꯒꯠ ꯁꯥꯒꯠꯄꯒꯤ ꯃꯑꯣꯡ ꯃꯇꯧ
ꯂꯧꯔꯒ ꯃꯅꯤꯄꯨꯔꯗ ꯌꯦꯡꯕꯗꯁꯨ ꯃꯁꯛ ꯄꯖꯕ, ꯊꯕꯛ ꯇꯧꯕꯗꯁꯨ ꯈꯨꯠꯂꯣꯏꯍꯟꯕ
ꯑꯃꯗꯤ ꯃꯊꯧ ꯇꯥꯕ ꯃꯆꯥꯛ ꯄꯨꯝꯅꯃꯛ ꯁꯨꯅ ꯐꯪꯍꯟꯕꯒꯤ ꯄꯥꯟꯗꯝꯗ ꯑꯅꯤꯁꯨꯕ
ꯃꯅꯤꯄꯨꯔ ꯔꯥꯏꯐꯜꯁꯀꯤ ꯆꯪꯐꯝ ꯃꯅꯥꯛꯀꯤ ꯑꯦ ꯇꯤ ꯂꯥꯏꯟꯗ ꯁꯤꯀꯨꯌꯔꯗ ꯑꯣꯐꯤꯁ
ꯕꯤꯜꯗꯤꯡ ꯑꯃ ꯁꯦꯝꯒꯠꯂꯤ꯫ ꯃꯅꯤꯄꯨꯔꯥꯗ ꯑꯍꯥꯟꯕ ꯑꯍꯏꯅ ꯂꯩꯉꯥꯛꯀꯤ ꯁꯤꯀꯨ

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ꯔꯗ ꯑꯣꯏꯔꯕ ꯑꯣꯐꯤꯁ ꯕꯤꯜꯗꯤꯡꯅꯤ ꯍꯥꯏꯅ ꯀ꯭ꯂꯦꯝ ꯇꯧꯕ ꯌꯥꯔꯕ ꯕꯤꯜꯗꯤꯡ ꯑꯁꯤ
ꯃꯅꯤꯄꯨꯔ ꯗꯤꯚꯦꯂꯞꯃꯦꯟꯠ ꯁꯣꯁꯥꯏꯇꯤ (ꯑꯦꯝ ꯗꯤ ꯑꯦꯁ) ꯅ ꯂꯨꯄꯥ ꯀ꯭ꯔꯣꯔ ꯀꯌꯥ
ꯆꯪꯅ ꯁꯥꯈꯤꯕꯅꯤ꯫ ꯀꯨꯝꯖꯥ 2015 ꯒꯤ ꯖꯅꯨꯋꯥꯔꯤ 24 ꯗ ꯆꯤꯐ ꯃꯤꯅꯤꯁꯇꯔ ꯑꯣꯀ꯭ꯔꯝ
ꯏꯕꯣꯕꯤ, ꯗꯦꯄꯨꯇꯤ ꯆꯤꯐ ꯃꯤꯅꯤꯁꯇꯔ ꯒꯥꯏꯈꯥꯉꯝ ꯑꯃꯗꯤ ꯃꯇꯝꯗꯨꯒꯤ ꯃꯅꯤꯄꯨꯔꯒꯤ
ꯆꯤꯐ ꯁꯦꯀ꯭ꯔꯦꯇꯔꯤ ꯄꯤ ꯁꯤ ꯂꯣꯝꯀꯨꯉꯥꯛꯅ ꯁꯔꯨꯛ ꯌꯥꯗꯨꯅ ꯕꯤꯂꯗꯤꯡ ꯑꯁꯤ ꯁꯪꯒꯥꯈꯤ꯫

ꯃꯊꯣꯜ ꯃꯔꯤ ꯋꯥꯡꯕ ꯑꯣꯐꯤꯁ ꯕꯤꯜꯗꯤꯡ ꯑꯁꯤꯗ ꯃꯅꯤꯄꯨꯔ ꯁ꯭ꯇꯦꯠ ꯔꯨꯔꯦꯜ ꯔꯣꯗ
ꯗꯤꯚꯦꯂꯞꯃꯦꯟꯠ ꯑꯦꯖꯦꯟꯁꯤ, ꯃꯅꯤꯄꯨꯔ ꯗꯤꯚꯦꯂꯞꯃꯦꯟꯠ ꯁꯣꯁꯥꯏꯇꯤ, ꯃꯅꯤꯄꯨꯔ
ꯁ꯭ꯇꯦꯠ ꯄꯋꯥꯔ ꯗꯤꯁꯇ꯭ꯔꯤꯕ꯭ꯌꯨꯁꯟ ꯀꯝꯄꯦꯅꯤ ꯂꯤꯃꯤꯇꯦꯗꯅꯆꯤꯡꯕ ꯇꯣꯉꯥꯟ
ꯇꯣꯉꯥꯟꯕ ꯁ꯭ꯇꯦꯠ ꯑꯁꯤꯒꯤ ꯃꯔꯨꯑꯣꯏꯕ ꯑꯣꯐꯤꯁ ꯀꯌꯥꯃꯔꯨꯝ ꯂꯩ꯫ ꯕꯤꯜꯗꯤꯡ ꯑꯁꯤꯒꯤ
ꯃꯄꯥꯜꯂꯣꯝꯗꯒꯤ ꯌꯦꯡꯕꯗ ꯃꯤꯡꯁꯦꯜꯅ ꯈꯥꯖꯤꯟꯕ ꯇꯔꯨ ꯇꯅꯥꯟꯕ ꯃꯐꯝ ꯃꯥꯟꯕꯇ ꯅꯠꯇꯅ
ꯅꯣꯡꯃꯗ ꯄꯨꯡ 24 ꯆꯨꯞꯅ ꯁꯤ ꯁꯤ ꯇꯤ ꯚꯤ ꯀꯦꯃꯦꯔꯥꯅ ꯀꯅꯥꯅ ꯀꯔꯤ ꯇꯧꯔꯤꯕꯒꯦ ꯍꯥꯏꯅ
ꯀꯨꯞꯁꯦꯟ ꯁꯦꯟꯅꯕ, ꯑꯁꯣꯟ ꯑꯅꯥ ꯑꯃꯁꯡꯨ ꯗꯤꯐꯔꯦꯟꯠꯂꯤ ꯑꯦꯕꯜ ꯄꯥꯔꯁꯟꯁꯤꯡꯅ
ꯐ꯭ꯂꯣꯔ ꯑꯃꯗꯒꯤ ꯐ꯭ꯂꯣꯔ ꯑꯃꯗ ꯀꯥꯈꯠꯄꯗ ꯁꯤꯖꯤꯟꯅꯕ ꯂꯤꯐꯇꯅꯆꯤꯡꯕ ꯍꯥꯞꯄꯤ꯫

ꯈꯨꯗꯝ ꯑꯣꯏꯅ ꯍꯥꯏꯔꯕꯗ ꯀꯅꯥꯒꯨꯝꯕ ꯃꯤꯑꯣꯏ ꯑꯃꯅ ꯑꯣꯐꯤꯁ ꯑꯁꯤꯗ ꯆꯪꯅꯤꯡꯕ ꯃꯇꯝꯗ
ꯍꯦꯛꯇ ꯆꯪꯕ ꯌꯥꯗꯅꯕ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ ꯊꯧꯁꯤꯜ ꯀꯌꯥꯃꯔꯨꯝ ꯄꯥꯏꯈꯠꯄꯅ ꯑꯣꯐꯤꯁ
ꯃꯅꯨꯡꯗ ꯊꯕꯛ ꯁꯨꯔꯤꯕꯁꯤꯡ ꯁꯦꯐ ꯑꯣꯏꯔꯦ ꯍꯥꯏꯅ ꯂꯧꯗꯨꯅ ꯑꯣꯐꯤꯁ ꯕꯤꯜꯗꯤꯡ ꯑꯁꯤꯕꯨ
ꯁꯤꯀꯨꯌꯔꯗ ꯑꯣꯐꯤꯁ ꯕꯤꯜꯗꯤꯡ ꯍꯥꯏꯅ ꯃꯃꯤꯡ ꯊꯣꯟꯈꯤꯕꯅꯤ꯫ ꯑꯗꯨꯃꯛꯄꯨ ꯍꯧꯖꯤꯛꯀꯤ
ꯃꯇꯝꯗ ꯃꯅꯤꯄꯨꯔꯗ ꯁꯤꯀꯨꯌꯔꯗ ꯑꯣꯏ ꯍꯥꯏꯅ ꯂꯧꯕ ꯌꯥꯕ꯭ꯔ ꯍꯥꯏꯕꯗꯨꯗꯤ ꯑꯔꯨꯕ ꯄꯥꯎꯈꯨꯝ
ꯑꯣꯏꯒꯅꯤ꯫ ꯃꯅꯤꯄꯨꯔ ꯗꯤꯚꯦꯂꯞꯃꯦꯟꯠ ꯁꯣꯁꯥꯏꯇꯤꯒꯤ ꯃꯤꯠꯌꯦꯡ ꯃꯈꯥꯗ ꯁꯥꯕ ꯑꯣꯐꯤꯁ
ꯅꯠꯇꯛꯔꯒ ꯑꯇꯩ ꯁꯦꯝꯒꯠ ꯁꯥꯒꯠꯄꯤ ꯊꯕꯛꯁꯤꯡ ꯑꯁꯤ ꯃꯤꯌꯥꯝꯅ ꯀꯌꯥ ꯐꯅ ꯉꯥꯡꯅꯗꯦ꯫

ꯊꯕꯛ ꯂꯣꯏꯁꯤꯜꯂꯝꯗꯅ ꯕꯤꯜ ꯂꯧꯇꯣꯛꯈꯤꯕ, ꯊꯕꯛ ꯀꯥꯕꯨꯛ ꯀꯥꯕꯨꯛ ꯁꯨꯔꯝꯂꯒ ꯑꯗꯨꯝ
ꯇꯣꯛꯈꯤꯕ ꯀꯌꯥꯃꯔꯨꯝ ꯌꯥꯎꯕꯅ ꯍꯨꯔꯥꯟꯕꯁꯤꯡꯒꯤ ꯁꯦꯜ ꯀꯣꯠꯐꯝ ꯑꯣꯏꯅ ꯂꯧꯅꯔꯛꯄ
ꯁꯣꯁꯥꯏꯇꯤꯁꯤꯡꯒꯤ ꯃꯅꯨꯡꯗ ꯃꯅꯤꯄꯨꯔ ꯗꯤꯚꯦꯂꯞꯃꯦꯟꯠ ꯁꯣꯁꯥꯏꯇꯤꯁꯨ ꯑꯃꯅꯤ꯫ ꯃꯁꯤ
ꯀꯔꯤꯗꯒꯤ ꯑꯣꯏꯔꯛꯄꯅꯣ, ꯀꯝꯗꯧꯅ ꯃꯤꯌꯥꯝꯅ ꯊꯥꯖꯕ ꯊꯝꯂꯛꯇ꯭ꯔꯤꯕꯅꯣ ꯍꯥꯏꯕꯗꯨꯗꯤ
ꯑꯣꯐꯤꯁ ꯑꯁꯤꯗ ꯊꯕꯛ ꯇꯧꯔꯤꯕ ꯑꯦꯝꯄ꯭ꯂꯣꯏꯁꯤꯡꯇꯅ ꯈꯪꯒꯅꯤ꯫ ꯆꯤꯐ ꯃꯤꯅꯤꯁꯇꯔ
ꯑꯣꯀ꯭ꯔꯝ ꯏꯕꯣꯕꯤꯅ ꯑꯊꯨ ꯑꯀꯥꯏꯒꯤ ꯑꯣꯏꯕ ꯊꯕꯛ ꯊꯧꯔꯝꯁꯤꯡ ꯐꯨꯠꯂꯧ ꯄꯜꯍꯧꯍꯟꯗꯅ
ꯄꯥꯡꯊꯣꯛꯄ ꯌꯥꯅꯕ ꯆꯍꯤꯒꯖꯤ ꯕꯖꯦꯠꯇ ꯃꯅꯤꯄꯨꯔ ꯗꯤꯚꯦꯂꯞꯃꯦꯟꯠ ꯁꯣꯁꯥꯏꯇꯤꯗ \

ꯥꯝꯂꯕ ꯁꯦꯟꯐꯝ ꯀꯌꯥꯃꯔꯨꯝ ꯊꯥꯗꯗꯨꯅ ꯂꯥꯛꯏ꯫ ꯍꯥꯏꯔꯤꯕ ꯁꯦꯟꯐꯝꯁꯤꯡ ꯑꯁꯤꯅ ꯁ꯭ꯇꯦꯠ
ꯑꯁꯤꯒꯖꯤ ꯇꯣꯉꯥꯟ ꯇꯣꯉꯥꯟꯕ ꯃꯐꯝꯁꯤꯡꯗ ꯀꯃꯨꯅꯤꯇꯤ ꯍꯣꯜ ꯀꯌꯥꯃꯔꯨꯝ ꯁꯥꯏ꯫

ꯃꯁꯤꯒꯤꯁꯨ ꯃꯊꯛꯇ ꯇꯨꯔꯤꯖꯝ ꯄ꯭ꯔꯣꯖꯦꯛꯀ ꯃꯔꯤ ꯂꯩꯅꯕ ꯊꯕꯛꯁꯤꯡ ꯑꯌꯥꯝꯕ ꯑꯦꯝ
ꯗꯤ ꯑꯦꯁꯇ ꯁꯤꯟꯅꯗꯨꯅ ꯂꯥꯛꯏ꯫ ꯃꯁꯥꯒꯤ ꯑꯣꯏꯖꯕꯇ ꯈꯟꯕ, ꯃꯤꯌꯥꯝꯒꯖꯤ ꯍꯥꯏꯕ ꯋꯥꯈꯜ
ꯂꯥꯞꯅ ꯂꯩꯍꯧꯔꯕ ꯃꯤꯑꯣꯏ ꯀꯌꯥꯅ ꯈꯨꯂꯤꯡꯕ ꯁ꯭ꯇꯦꯠ ꯑꯣꯏꯔꯛꯄꯅ ꯁꯨꯗꯅ ꯅꯨꯡꯉꯥꯏꯅꯤꯡꯕ
ꯃꯤꯑꯣꯏ ꯀꯌꯥꯃꯔꯨꯝ ꯊꯣꯛꯔꯏ ꯍꯥꯏꯕꯁꯤ ꯃꯤꯌꯥꯝꯅ ꯌꯥꯅꯤꯡꯒꯅꯤ꯫ ꯑꯁꯤꯒꯨꯝꯕ ꯃꯤꯑꯣꯏ
ꯀꯌꯥꯅ ꯌꯥꯝꯅ ꯀꯣꯝꯅ ꯁꯦꯜ ꯐꯪꯕ ꯌꯥꯕ ꯃꯐꯝ ꯊꯤꯔꯛꯄꯗ ꯑꯦꯝ ꯗꯤ ꯑꯦꯁ ꯑꯁꯤꯁꯨ ꯑꯃꯅꯤ
ꯍꯥꯏꯅ ꯂꯧꯅꯩ꯫ ꯗꯤꯄꯣꯖꯤꯠ ꯋꯥꯛ ꯑꯌꯥꯝꯕ ꯑꯣꯏꯕ ꯃꯔꯝꯅ ꯊꯕꯛ ꯁꯨꯕ, ꯊꯕꯛ ꯂꯣꯏꯁꯤꯟꯕ
ꯅꯠꯇ꯭ꯔꯒ ꯂꯣꯏꯁꯤꯟꯗꯕ ꯍꯥꯏꯕ ꯊꯤꯗꯅ ꯃꯔꯤ ꯂꯩꯅꯕ ꯃꯦꯅꯦꯖꯤꯡ ꯗꯤꯔꯦꯛꯇꯔꯅ ꯁꯦꯜ
ꯍꯦꯛꯇ ꯄꯤꯊꯣꯛꯄ ꯉꯝꯕ ꯁꯣꯁꯥꯏꯇꯤ ꯑꯃꯁꯨ ꯑꯣꯏꯔꯤ꯫ ꯃꯇꯥꯡ ꯑꯁꯤꯗ ꯄꯟꯖꯅꯤꯡꯕ
ꯋꯥꯐꯝꯗꯤ ꯁꯪꯒꯥꯕ ꯆꯍꯤ 2 ꯗ ꯉꯥꯏꯔꯤꯕ ꯁꯤꯀꯨꯌꯔꯗ ꯑꯣꯐꯤꯁ ꯕꯤꯜꯗꯤꯡꯕꯨ ꯍꯟꯗꯛꯇ
ꯐ꯭ꯂꯣꯔ ꯀꯌꯥꯃꯔꯨꯝꯗ ꯀ꯭ꯔꯦꯛ ꯆꯠꯂꯛꯄꯗꯒꯤ ꯊꯧꯗꯣꯛ ꯑꯁꯤ ꯑꯆꯧꯕ ꯁ꯭ꯀꯦꯟꯗꯜ
ꯑꯃꯔ ꯍꯥꯏꯅ ꯊꯤꯗꯣꯛꯄꯒꯤ ꯇꯉꯥꯏꯐꯗꯕ ꯂꯩ꯫ ꯏꯝꯄꯥꯜꯒꯤ ꯖꯤꯔꯣ ꯀꯤꯂꯣꯃꯤꯇꯔꯗ
ꯂꯩꯕ ꯃꯐꯝ ꯑꯃꯗ ꯂꯩꯉꯥꯛꯀꯤ ꯑꯣꯐꯤꯁ ꯑꯃ TSI ꯈꯪꯍꯧꯗꯅ ꯐ꯭ꯂꯣꯔ ꯀꯌꯥꯃꯔꯨꯝꯗ
ꯃꯊꯪ ꯃꯊꯪꯀ ꯆꯦꯛꯈꯥꯏꯔꯛꯏ ꯍꯥꯏꯕꯁꯤ ꯀꯗꯥꯏꯗꯅꯣ ꯑꯃ ꯑꯁꯣꯏꯕ ꯂꯩꯔꯦ ꯍꯥꯏꯕ
ꯇꯥꯛꯄꯅꯤ꯫ ꯀ꯭ꯋꯥꯂꯤꯇꯤ ꯀꯟꯇ꯭ꯔꯣꯜ ꯅꯤꯡꯊꯤꯅ ꯇꯧꯗ꯭ꯔꯦ ꯍꯥꯏꯅ ꯂꯧꯕꯁꯨ ꯌꯥꯏ꯫ ꯃꯁꯤ
ꯑꯦꯝ ꯗꯤ ꯑꯦꯁꯀꯛꯤ ꯏꯟꯖꯤꯅꯤꯌꯥꯔ ꯑꯃꯁꯨꯡ ꯊꯕꯛ ꯑꯗꯨꯕꯨ ꯄꯥꯏꯔꯤꯕ ꯊꯤꯀꯥꯗꯥꯔꯒꯤ
ꯑꯁꯣꯏꯕꯔ ꯍꯥꯏꯕꯗꯨ ꯌꯦꯡꯁꯤꯟꯕ ꯆꯪꯏ꯫ ꯏꯝꯄꯥꯜ ꯃꯌꯣꯜꯗ ꯑꯁꯨꯝꯅ ꯊꯕꯛ ꯁꯨꯕꯒꯤ
ꯈꯨꯗꯝ ꯐꯪꯂꯕꯁꯤꯅꯗꯤ ꯆꯤꯡꯗ ꯅꯠꯇ꯭ꯔꯒ ꯃꯅꯨꯡ ꯍꯟꯖꯤꯟꯕ ꯃꯐꯝꯁꯤꯡꯗꯗꯤ ꯀꯔꯝꯅ
ꯁꯥꯔꯝꯒꯗꯒꯦ ꯍꯥꯏꯕ ꯈꯟꯕꯗ ꯋꯥꯏ꯫ ꯑꯩꯈꯣꯏꯅ ꯌꯨꯍ ꯍꯥꯕꯗ ꯄꯪꯇꯥꯏꯗ ꯇꯥꯏꯁꯤꯟꯕ
ꯍꯥꯏꯕꯁꯤ ꯍꯨꯔꯥꯟꯕ ꯀꯪꯈꯠꯅꯕ ꯄꯥꯝꯕꯩꯅꯤ ꯍꯥꯏꯅ ꯂꯧꯕ ꯌꯥꯏ꯫

ꯅꯨꯡꯉꯥꯏꯅ ꯂꯩꯕ ꯁꯟꯅ ꯁꯪꯒꯣꯝ ꯍꯦꯟꯅ ꯊꯣꯛꯏ
ꯁꯥꯏꯟꯁꯀꯤ ꯈꯣꯡꯆꯠ
ꯀꯨꯟꯖꯣ ꯅꯥꯎꯔꯦꯝ
ꯁꯦꯔꯣꯇꯣꯅꯤꯟꯒꯤ ꯁ꯭ꯇ꯭ꯔꯛꯆꯔ 5- hydroxy-L-tryptophan ꯒꯤ ꯁ꯭ꯇ꯭ꯔꯛꯆꯔ
ꯏꯪꯂꯦꯟꯒꯤ ꯐꯥꯝ ꯑꯃꯗ ꯂꯩꯕ ꯖꯔꯁꯤ ꯁꯟꯁꯤꯡ Holstein ꯀꯥꯡꯂꯨꯞꯀꯤ KE ꯃꯈꯜ ꯑꯃ