

```
mudell=aov(PH~Jarv*aastaaeg);summary(mudell)
print(model.tables(mudell,"means"),digits=2)
```

Tables of means

Grand mean

7.630421

Jarv

#Järvede keskmised

```
      J1297 J653 J932
      6  8.2  8.4
rep    27 42.0 26.0
```

aastaaeg

#Aastaaegade keskmised

```
      kevad sügis suvi
      7.6  7.6  7.7
rep   48.0 18.0 29.0
```

Jarv:aastaaeg

#Iga järve pH keskmine aastaaegade kaupa

```
      Aastaaeg
Jarv  kevad sügis suvi
J1297  5.9  6.1  6.1
rep    12.0  7.0  8.0
J653   8.1  8.2  8.3
rep    22.0  8.0 12.0
J932   8.4  8.1  8.4
rep    14.0  3.0  9.0
```

TukeyHSD(mudell)

Tukey multiple comparisons of means

95% family-wise confidence level

Fit: aov(formula = PH ~ Jarv * aastaaeg)

\$Jarv

	diff	lwr	upr	p adj	
J653-J1297	2.1828571	2.0433931	2.3223212	0.0000000	#järved erinevad pH poolest
J932-J1297	2.3458974	2.1905466	2.5012482	0.0000000	
J932-J653	0.1630403	0.0219532	0.3041274	0.0193641	

\$aastaaeg

	diff	lwr	upr	p adj	# aastajad ei erine
sügis-kevad	0.02376297	-0.13250113	0.1800271	0.9301233	
suvi-kevad	0.12143233	-0.01154263	0.2544073	0.0807573	
suvi-sügis	0.09766936	-0.07198218	0.2673209	0.3594880	

\$`Jarv:aastaaeg`

#paarikaupa võrdlused, iga järv igal aastajal teiste suhtes

	diff	lwr	upr	p adj
J653:kevad-J1297:kevad	2.20704545	1.93632255	2.4777684	0.0000000
J932:kevad-J1297:kevad	2.49392857	2.19715888	2.7906983	0.0000000
J1297:sügis-J1297:kevad	0.14392857	-0.21484849	0.5027056	0.9354554
J653:sügis-J1297:kevad	2.29750000	1.95317632	2.6418237	0.0000000
J932:sügis-J1297:kevad	2.17250000	1.68555278	2.6594472	0.0000000
J1297:suvi-J1297:kevad	0.19750000	-0.14682368	0.5418237	0.6655042
J653:suvi-J1297:kevad	2.39750000	2.08952754	2.7054725	0.0000000
J932:suvi-J1297:kevad	2.45027778	2.11762950	2.7829261	0.0000000
J932:kevad-J653:kevad	0.28688312	0.02897595	0.5447903	0.0178734
J1297:sügis-J653:kevad	-2.06311688	-2.39047729	-1.7357565	0.0000000
J653:sügis-J653:kevad	0.09045455	-0.22099794	0.4019070	0.9909681
J932:sügis-J653:kevad	-0.03454545	-0.49883141	0.4297405	0.9999997
J1297:suvi-J653:kevad	-2.00954545	-2.32099794	-1.6980930	0.0000000
J653:suvi-J653:kevad	0.19045455	-0.08026836	0.4611775	0.3908546
J932:suvi-J653:kevad	0.24323232	-0.05526178	0.5417264	0.2049300
J1297:sügis-J932:kevad	-2.35000000	-2.69920795	-2.0007921	0.0000000
J653:sügis-J932:kevad	-0.19642857	-0.53076973	0.1379126	0.6360811
J932:sügis-J932:kevad	-0.32142857	-0.80136899	0.1585118	0.4595815
J1297:suvi-J932:kevad	-2.29642857	-2.63076973	-1.9620874	0.0000000
J653:suvi-J932:kevad	-0.09642857	-0.39319826	0.2003411	0.9813987
J932:suvi-J932:kevad	-0.04365079	-0.36595514	0.2786535	0.9999644
J653:sügis-J1297:sügis	2.15357143	1.76314507	2.5439978	0.0000000
J932:sügis-J1297:sügis	2.02857143	1.50800295	2.5491399	0.0000000
J1297:suvi-J1297:sügis	0.05357143	-0.33685493	0.4439978	0.9999606

J653:suvi-J1297:sügis	2.25357143	1.89479437	2.6123485	0.0000000
J932:suvi-J1297:sügis	2.30634921	1.92617974	2.6865187	0.0000000
J932:sügis-J653:sügis	-0.12500000	-0.63571455	0.3857146	0.9971756
J1297:suvi-J653:sügis	-2.10000000	-2.47718769	-1.7228123	0.0000000
J653:suvi-J653:sügis	0.10000000	-0.24432368	0.4443237	0.9909689
J932:suvi-J653:sügis	0.15277778	-0.21378277	0.5193383	0.9206356
J1297:suvi-J932:sügis	-1.97500000	-2.48571455	-1.4642854	0.0000000
J653:suvi-J932:sügis	0.22500000	-0.26194722	0.7119472	0.8659612
J932:suvi-J932:sügis	0.27777778	-0.22513915	0.7806947	0.7092034
J653:suvi-J1297:suvi	2.20000000	1.85567632	2.5443237	0.0000000
J932:suvi-J1297:suvi	2.25277778	1.88621723	2.6193383	0.0000000
J932:suvi-J653:suvi	0.05277778	-0.27987050	0.3854261	0.9998810

Joonis: Järv 932 käitub sesoonselt teistmoodi kui teised järved, seetõttu ongi koosmõju oluline.

