**Rules for generating Yoloxóchitl Mixtec surface forms from underlying representations:**

**Section 1: Vowel harmony, palatalization and labialization**

|  |  |  |  |
| --- | --- | --- | --- |
| **Gloss** | **Form** | **Context** | **Vowel changes** |
|  |  |  | **CVV** | **CV'V** | **CV(')CV** |
| 1sg | =yu1 | root ends in tones 1, 2 | no change | no change | no change |
|  | =2 | root ends in tones 3 o 4 | no change | no change | no change |
|  | =e2 | root ends in vowels /a/, /o/ and tone 2 (alternates with = yu1) | a: Caa > Ceeo: Coo > Coe | a: Ca'a > Ce'eo: no examples | a: CVCa > CVCeo: CVCo > CVCwe CVCoe |
|  | =e1 | root ends in vowels /a/, /o/ and tone 1 | a: Caa > Ceeo: no examples | a: Ca'a > Ce'eo: no examples | a: CVCa > CVCeo: CVCo > CVCwe CVCoe |
|  | =i2 | root ends in vowel /u/ and tone 2 | Cuu > Cwii | Cu'u > Cu'i | CVCu > CVCwi |
|  | =i1 | root ends in vowel /u/ and tone 1 | Cuu > Cwii | Cu'u > Cu'i | CVCu > CVCwi |
| 2sg | =on4 | root ends in vowel /e/, /a/ y /o/ | e: Cee > Ceõa: Caa > Caõo: Coõ > Coõ | e: Ce'e > Ce'õa: Ca'a > Ca'õo: Co'o > Co'õ | e: CVCe > CVCyōa: CVCa > CVCōo: CVCo > CVCō |
|  | =un4 | root ends in vowel /i/ y /u/ | i: Cii > Cyũũ u: Cuu > Cuũ | i: Ci'i > Cyu'ũ Ci'ũ u: Cu'u > Cu'ũ | i: CVCi > CVCyũ u: CVCu > CVCũ |
| 3sgMasc | =ra3 | only phrase final and with root ending in tones 3 or 4 | no change | no change | no change |
|  | =ra2 | only phrase medial and root ending in tones 3 or 4 | no change | no change | no change |
|  | =ra1 | any phrase position and with root ending in tones 2 o 1 | no change | no change | no change |
| 3sgFem | =an4 | root ends in vowel /i/, /e/, /o/, /u/ | i: Cii > Cyaane: Cee > Ceano: Coo > Coanu: Cuu > Cwaan | i: Ci'i > Ci'ane: Ce'e > Ce'ano: Ci'i > Ci'anu: Cu'u > Cu'an | i: CVCi > CVCyane: CVCe > CVCyano: CVCo > CVCwanu: CVCu > CVCwan |
|  | =en4 | root ends in vowel /a/ | Caa > Ceen | Ca'a > Ce'en | CVCa > CVCen |
|  | =ña4 | after another enclitic, that is, as an object marker | no change | no change | no change |
| 1plIncl | =o4 | root ends in vowel /i/, /e/ | i: Cii > Cyoo Cioe: Cee > Cyoo Ceo | i: Ci'i > Ci'oe: Ce'e > Ce'o | i: CVCi > CVCyoe: CVCe > |
|  | =e4 | root ends in vowel /u/, /o/, /a/ | u: Cuu > Cue Cweeo: Coo > Coe Cweea: Caa > Cee | u: Cu'u > Cu'e Cwe'eo: Co'o > Co'e Cwe'ea: Ca'a > Ce'e | u: CVCu > CVCweo: CVCo > CVCwea: CVCa > CVCe |
| 1plExcl | =ndu3 | only phrase final and with root ending in tones 3 or 4 | no change | no change | no change |
|  | =ndu2 | only phrase medial and root ending in tones 3 or 4 | no change | no change | no change |
|  | =ndu1 | any phrase position and with root ending in tones 2 o 1 | no change | no change | no change |
| 2pl | =ndo4 | after all roots | no change | no change | no change |
| 3pl | =na3 | only phrase final and with root ending in tones 3 or 4 | no change | no change | no change |
|  | =na2 | only phrase medial and root ending in tones 3 or 4 | no change | no change | no change |
|  | =na1 | any phrase position and with root ending in tones 2 o 1 | no change | no change | no change |
| wood | =run4 | after all roots | no change | no change | no change |
| animals | =ri4 | after all roots | no change | no change | no change |
| liquid | =ra4 | after all roots | no change | no change | no change |
| objects | =a3 | only phrase final and with root ending in any vowel but /a/ and in tones 3 or 4 | i: Cii > Cyae: Cee > Cjaao: Coo > Coau: Cuu > Cwaa | i: Ci'i > Ci'ae: Ce'e > Ce'ao: Ci'i > Ci'au: Cu'u > Cu'a | i: CVCi > CVCyae: CVCe > CVCyao: CVCo > CVCwau: CVCu > CVCwa |
|  | =a2 | only phrase medial and root ending in any vowel but /a/ and in tones 3 or 4 | i: Cii > Cyaae: Cee > Cjaao: Coo > Coau: Cuu > Cwaa | i: Ci'i > Ci'ae: Ce'e > Ce'ao: Ci'i > Ci'au: Cu'u > Cu'a | i: CVCi > CVCyae: CVCe > CVCyao: CVCo > CVCwau: CVCu > CVCwa |
|  | =a1 | any phrase position and with root ending in any vowel but /a/ and tones 2 or 1 | i: Cii > Cyaae: Cee > Cjaao: Coo > Coau: Cuu > Cwaa | i: Ci'i > Ci'ae: Ce'e > Ce'ao: Ci'i > Ci'au: Cu'u > Cu'a | i: CVCi > CVCyae: CVCe > CVCyao: CVCo > CVCwau: CVCu > CVCwa |
|  | =e3 | only phrase final and with root ending in /a/ and in tones 3 or 4 | Caa > Cee | Ca'a > Ce'e | CVCa > CVCe |
|  | =e2 | only phrase medial and root ending in /a/ and in tones 3 or 4 | Caa > Cee | Ca'a > Ce'e | CVCa > CVCe |
|  | =e1 | any phrase position and with root ending in /a/ and tones 2 or 1 | Caa > Cee | Ca'a > Ce'e | CVCa > CVCe |
|  |  |  |  |  |  |

**2. Denasalization**

|  |  |  |  |
| --- | --- | --- | --- |
| **Gloss** | **Form** | **Context** | **Vowel changes** |
|  |  |  | **CVVn** | **CV'Vn** | **CV(')CVn** |
| 1sg | =e1 | root ends in vowels /a/, /o/ and tone 1 | a: Caa > Ceeo: no examples | a: Ca'a > Ce'eo: no examples | a: CVCa > CVCeo: CVCo > CVCwe CVCoe |
|  | =i2 | root ends in vowel /u/ and tone 2 | Cuu > Cwi | Cu'u > Cu'i | CVCu > CVCwi |
|  | =i1 | root ends in vowel /u/ and tone 1 | Cuu > Cwi | Cu'u > Cu'i | CVCu > CVCwi |
| 1plIncl | =o4 | root ends in vowel /i/, /e/ | i: Cii > Cyo Cioe: Cee > Cyo Ceo | i: Ci'i > Ci'oe: Ce'e > Ce'o | i: CVCi > CVCyoe: CVCe > |
|  | =e4 | root ends in vowel /u/, /o/, /a/ | u: Cuu > Cue Cweo: Coo > Coe Cwea: Caa > Cee | u: Cu'u > Cu'e Cwe'eo: Co'o > Co'e Cwe'ea: Ca'a > Ce'e | u: CVCu > CVCweo: CVCo > CVCwea: CVCa > CVCe |
| objects | =a3 | only phrase final and with root ending in any vowel but /a/ and in tones 3 or 4 | i: Cii > Cyae: Cee > Ceao: Coo > Coau: Cuu > Cua | i: Ci'i > Ci'ae: Ce'e > Ce'ao: Ci'i > Ci'au: Cu'u > Cu'a | i: CVCi > CVCyae: CVCe > CVCyao: CVCo > CVCwau: CVCu > CVCwa |
|  | =a2 | only phrase medial and root ending in any vowel but /a/ and in tones 3 or 4 | i: Cii > Cyae: Cee > Ceao: Coo > Coau: Cuu > Cua | i: Ci'i > Ci'ae: Ce'e > Ce'ao: Ci'i > Ci'au: Cu'u > Cu'a | i: CVCi > CVCyae: CVCe > CVCyao: CVCo > CVCwau: CVCu > CVCwa |
|  | =a1 | any phrase position and with root ending in any vowel but /a/ and tones 2 or 1 | i: Cii > Cyae: Cee > Ceao: Coo > Coau: Cuu > Cua | i: Ci'i > Ci'ae: Ce'e > Ce'ao: Ci'i > Ci'au: Cu'u > Cu'a | i: CVCi > CVCyae: CVCe > CVCyao: CVCo > CVCwau: CVCu > CVCwa |
|  | =e3 | only phrase final and with root ending in /a/ and in tones 3 or 4 | Caa > Cee | Ca'a > Ce'e | CVCa > CVCe |
|  | =e2 | only phrase medial and root ending in /a/ and in tones 3 or 4 | Caa > Cee | Ca'a > Ce'e | CVCa > CVCe |
|  | =e1 | any phrase position and with root ending in /a/ and tones 2 or 1 | Caa > Cee | Ca'a > Ce'e | CVCa > CVCe |
|  |  |  |  |  |  |